Polyvinyl Alcohol from Taiwan

Investigation No. 731-TA-1088 (Final)

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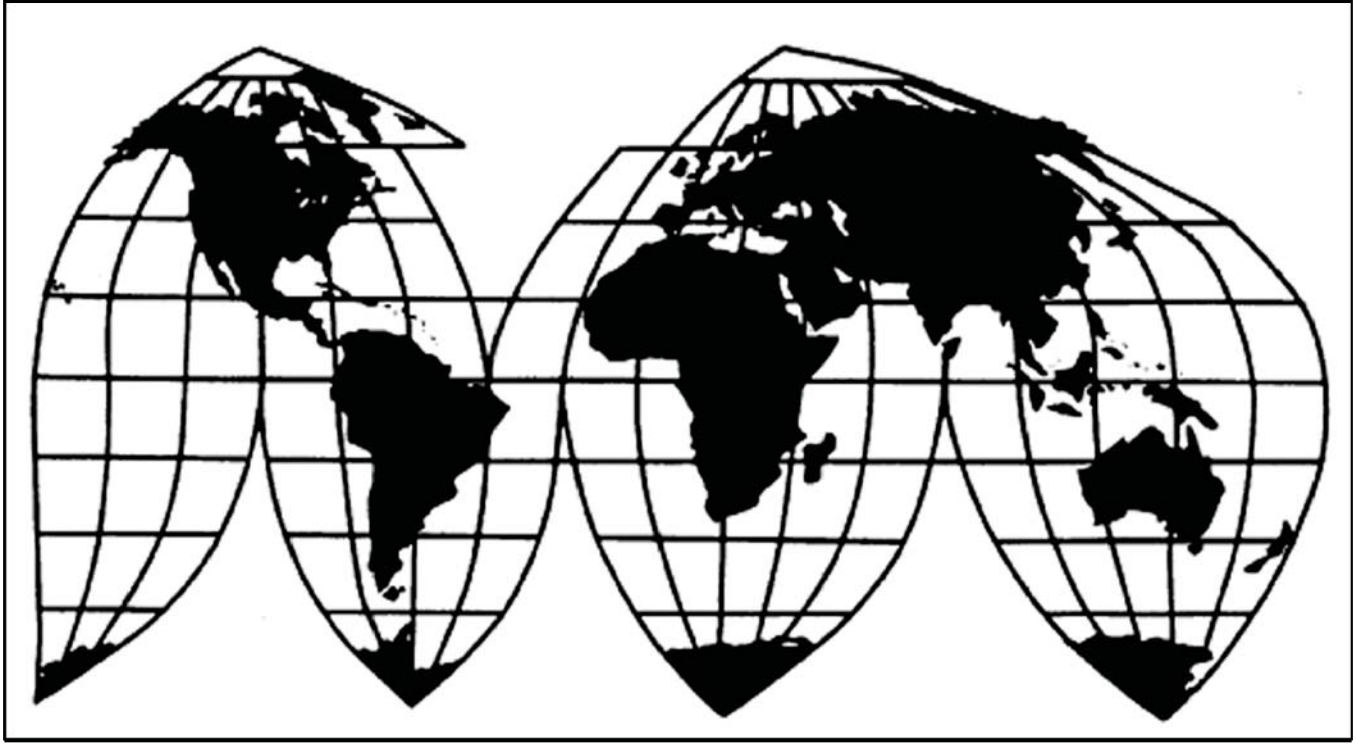
U.S. International Trade Commission



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U.S. International Trade Commission

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Note.–Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report.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

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-1088 (Final)

POLYVINYL ALCOHOL FROM TAIWAN

DETERMINATION

On the basis of the record[1] developed in the subject investigation, the United States International Trade Commission (Commission) determines, pursuant to section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the Act), that an industry in the United States is materially injured by reason of imports from Taiwan of polyvinyl alcohol, provided for under subheading 3905.30.00 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce (Commerce) to be sold in the United States at less than fair value (LTFV).[2]

BACKGROUND

The Commission instituted this investigation effective September 7, 2004, following receipt of a petition filed with the Commission and Commerce by Celanese Chemicals, Ltd., Dallas, TX. The final phase of the investigation was scheduled by the Commission following notification of a preliminary determination by Commerce that imports of polyvinyl alcohol from Taiwan were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. § 1673b(b)). Notice of the scheduling of the final phase of the Commission's investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of October 4, 2010 (75 FR 61175). The hearing was held in Washington, DC, on January 25, 2011, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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

[2] Chairman Deanna Tanner Okun and Commissioner Daniel R. Pearson made negative determinations.

VIEWS OF THE COMMISSION

Based on the record in the final phase of this investigation, we find that an industry in the United States is materially injured by reason of imports of polyvinyl alcohol ("PVA") from Taiwan that the U.S. Department of Commerce ("Commerce") has found to be sold in the United States at less than fair value ("LTFV").[1]

I. BACKGROUND

The antidumping duty petition in this investigation was filed on September 7, 2004 by Celanese Chemicals Ltd. ("Celanese"), Dallas, Texas.[2] The final phase of this investigation is being conducted several years after the filing of the petition as a consequence of intervening litigation, which concluded on December 23, 2009.[3] On July 1, 2009, during the pendency of the litigation, Sekisui America acquired the assets of Celanese's polyvinyl alcohol business, creating Sekisui Specialty Chemical America, LLC ("SSCA"). SSCA is the successor in interest to Celanese as petitioner in this investigation.

SSCA filed briefs and participated in the Commission's hearing. Respondents E.I. du Pont de Nemours and Company ("DuPont"), a domestic producer and importer of PVA from Taiwan, and Chang Chun Petrochemical Co., Ltd. ("CCPC"), the sole Taiwan producer of PVA, also filed briefs and participated in the Commission's hearing.

II. DOMESTIC LIKE PRODUCT

A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the

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[1] Chairman Okun and Commissioner Pearson determine that an industry in the United States is not materially injured or threatened with material injury, and the establishment of an industry in the United States is not materially retarded, by reason of imports of PVA from Taiwan found to be sold at LTFV. See Dissenting Views of Chairman Deanna Tanner Okun and Commissioner Daniel R. Pearson. They join sections I, II, III, and IV.A and B of this opinion.

[2] Confidential Staff Report ("CR") at I-1; Public Staff Report ("PR") at I-1, as revised by Memorandum INV-JJ-014 (February 18, 2011).

[3] See CR at I-3-4; PR at I-2-3. The Commission originally reached a negative preliminary determination by a vote of three to two, with one Commissioner not participating. Polyvinyl Alcohol from Taiwan, Inv. No. 731-TA-1088 (Preliminary), USITC Pub. 3732 (Oct. 2004), at 3. On November 24, 2004, Celanese appealed and, on January 29, 2007, the U.S. Court of International Trade ("CIT") issued a decision affirming the Commission's determination in part and remanding it in part. Celanese Chemicals Ltd. v. United States, 31 CIT 279, 280 (2007). In the Commission's remand determination, issued on April 30, 2007, then Vice Chairman Aranoff and Commissioners Williamson and Pinkert, who were new to the Commission and therefore considered the record de novo, reached affirmative determinations to form a new majority reaching an affirmative preliminary determination. Polyvinyl Alcohol from Taiwan, Inv. No. 731-TA-1088 (Preliminary) (Remand), USITC Pub. 3920 (Apr. 2007), at 1 & n.3. On January 16, 2009, domestic producer E.I. du Pont de Nemours and Company and Taiwan producer Chang Chun Petrochemical Co., Ltd. appealed the CIT's decision to the U.S. Court of Appeals for the Federal Circuit, which affirmed the CIT on December 23, 2009. Celanese Chemicals Ltd. v. United States, 358 Fed. Appx. 174 (Fed. Cir. 2009). After no party petitioned the U.S. Supreme Court for a writ of certiorari within the prescribed period, the Commission published notice of its affirmative preliminary determination on remand on March 30, 2010. 75 Fed. Reg. 15726 (March 30, 2010).

"domestic like product" and the "industry."[4] 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."[5] 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."[6]

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.[7] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[8] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[9] Although the Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized or sold at less than fair value,[10] the Commission determines what domestic product is like the imported articles Commerce has identified.[11]

B. Product Description

In the preliminary phase of this investigation, the scope of investigation consisted of all PVA hydrolyzed in excess of 80 percent, whether or not mixed or diluted with commercial levels of defoamer

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[4] 19 U.S.C. § 1677(4)(A).

[5] 19 U.S.C. § 1677(4)(A).

[6] 19 U.S.C. § 1677(10).

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

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

[9] Nippon, 19 CIT at 455; Torrington, 747 F. Supp. at 748-49; see also S. Rep. No. 96-249 at 90-91 (1979) (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.").

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

[11] Hosiden Corp. v. Advanced Display Mfrs., 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); Cleo, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's [like product] determination."); Torrington, 747 F. Supp. at 748-52 (affirming the Commission's determination defining six like products in investigations in which Commerce found five classes or kinds). The PVA subject to this investigation is currently classifiable under subheading 3905.30.00 of the Harmonized Tariff Schedule of the United States ("HTSUS"). CR at I-9; PR at I-6; CR/PR at Table I-2.

or boric acid, except for PVA in fiber form.[12] In its September 2010 preliminary determination, at SSCA's request, Commerce also excluded from the scope of this investigation certain low-ash PVA used to produce polyvinyl butyral ("PVB"), a downstream article, and known as PVB-grade PVA. Commerce defined the imported merchandise within the scope of the investigation ("scope PVA") as follows:

> This product consists of all PVA hydrolyzed in excess of 80 percent, whether or not mixed or diluted with commercial levels of defoamer or boric acid. PVA in fiber form and PVB-grade low-ash PVA are not included in the scope of this investigation. PVB-grade low-ash PVA is defined to be PVA that meets the following specifications: Hydrolysis, Mole % of 98.40 +/- 0.40, 4% Solution Viscosity 30.00 +/- 2.50 centipois, and ash--ISE, wt% less than 0.60, 4% solution color 20mm cell, 10.0 maximum APHA units, haze index, 20mm cell, 5.0, maximum. The merchandise under investigation is currently classifiable under subheading 3905.30.00 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheading is provided for convenience and customs purposes, the written description of the merchandise under investigation is dispositive.[13]

PVA is a water-soluble synthetic polymer, usually sold in a white granular solid or powdered form.[14] PVA can be categorized on the basis of its degree of hydrolysis (i.e., the percentage of acetate groups in the PVA feedstock replaced by hydroxyl groups in the finished PVA, up to 98 percent for fully hydrolyzed PVA), molecular weight, and viscosity in an aqueous solution, which varies with molecular weight.[15] It is sold in a variety of standard and specialty grades based on its degree of hydrolysis (commonly described as partial, intermediate, fully, or super) and molecular weight, with the specific performance of any given grade dependent on its degree of hydrolysis and viscosity.[16] The greater the degree of hydrolysis, the better the water resistence of the PVA.[17]

In the United States, the most significant end use of PVA is as an intermediate in the production of PVB, which is an adhesive used between panes of automotive safety glass or load-resistant architectural glass.[18] PVA is also used in the textile industry for sizing formulations, which prevent yarns from breaking during the weaving process; in the paper industry to impart particular properties to the paper, such as grease and water resistance and ink receptivity; as a binder in adhesive and soil binding formulations; and as an emulsion or polymerization aid in colloidal suspensions, water-soluble films, cosmetics, and joint compounds.[19] Although not all grades of PVA are completely interchangeable, the same grade of PVA is frequently sold for different end-use applications, and many end users are able to use a range of grades in the same end-use applications.[20]

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[12] See PVA from Taiwan, USITC Pub. 3732 at 9.

[13] CR at I-8-9; PR at I-6.

[14] CR at I-10; PR at I-7.

[15] CR at I-10; PR at I-7.

[16] CR at I-10-11; PR at I-7-8.

[17] CR at I-11; PR at I-8.

[18] CR at I-10; PR at I-7.

[19] CR at I-10; PR at I-7.

[20] CR at I-12; PR at I-8. Both U.S. producers, but only 3 of 9 importers and 5 of 20 purchasers, reported that grades of PVA with differing degrees of hydrolysis and viscosity were substitutable in the same applications. CR at II-41; PR at II-24.

C. Previous Investigations

Previous antidumping duty investigations involving PVA were conducted in 1995-1996 with respect to imports from China, Japan, Korea, and Taiwan, and in 2002-2003 with respect to imports from China, Germany, Japan, Korea, and Singapore.[21] Five-year reviews of the antidumping duty orders on PVA from China, Japan, and Korea were completed in 2009.[22] The scope of those investigations and reviews included PVB-grade PVA and thus was broader than the scope of this final phase investigation.[23] In the 1995 and 2002 antidumping duty investigations, the Commission rejected party arguments that it should define PVB-grade PVA as a separate domestic like product and defined a single domestic like product encompassing all PVA within the scope.[24] In the reviews, the Commission found no material changes in the pertinent facts since the original investigations and defined a single domestic like product, as urged by domestic interested parties Celanese and DuPont.[25]

D. Domestic Like Product Analysis

In the preliminary phase of this investigation, petitioner Celanese argued that the Commission should define a single domestic like product coextensive with the scope, which included PVB-grade PVA.[26] Respondent DuPont agreed with Celanese, and respondent CCPC did not argue otherwise.[27] Based on the record of the preliminary phase investigation and the absence of any party arguments to the contrary, the Commission found that there had been no material change to the relevant facts since the 2002 investigations and defined a single domestic like product encompassing all PVA within the scope.[28]

In the final phase of this investigation, the scope of the investigation is more narrow than that in the preliminary phase in that Commerce has now excluded PVB-grade PVA from the scope at petitioner's request. Nevertheless, both petitioner and respondents urge the Commission to define a single domestic like product encompassing all PVA, including PVB-grade PVA, which now is outside the scope of this investigation.[29]

The Commission may, where appropriate, include domestic articles in the domestic like product that are in addition to those described in the scope of investigation.[30] Based on the following analysis of our six domestic like product factors, we find a continuum of domestic PVA products with no clear

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

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

[23] CR at I-13-15; PR at I-9-11.

[24] CR at I-13-15; PR at I-9-11.

[25] CR at I-15; PR at I-10-11.

[26] CR at I-15-16 PR at I-11; PVA from Taiwan, USITC Pub. 3732 at 11. In its remand views, the Commission adopted the analysis of the domestic like product definition from its original views. PVA from Taiwan, USITC Pub. 3920 at 10.

[27] CR at I-16; PR at I-11; PVA from Taiwan, USITC Pub. 3732 at 11.

[28] CR at I-16; PR at I-11; PVA from Taiwan, USITC Pub. 3920 at 10; PVA from Taiwan, USITC Pub. 3732 at 11.

[29] See Petitioner's Prehearing Brief at 5; Petitioner's Responses to Commissioner Questions at 34-36; Respondents' Prehearing Brief at 2.

[30] See, e.g., Pure Magnesium from China and Israel, Inv. Nos. 701-TA-403 and 731-TA-895-96 (Final), USITC Pub. 3467 (Nov. 2001) at 8, n. 34; Torrington Co. v. United States, 747 F.Supp. 744, 748-9 (Ct. Int'l Trade 1990), aff'd, 938 F.2d 1278 (Fed. Cir. 1991) (holding that the Commission is not legally required to limit its like product to the like product advocated by the petitioner, co-extensive with the scope).

dividing line drawn at the scope of investigation as defined by Commerce. Therefore, we define the domestic like product to encompass all PVA, including PVB-grade PVA that is outside the scope.

Physical characteristics and uses

The record indicates that scope PVA can differ physically from PVB-grade PVA in ways that may foreclose its interchangeability with PVB-grade PVA in the same applications. Specifically, *** claims that PVB-grade PVA must be extremely clear and colorless for use in automotive and architectural glass, unlike scope PVA used in adhesives, emulsion polymerization, paper, and textile applications.[31] In addition, *** claims that PVB-grade PVA is evaluated based upon ***.[32]

Other evidence on the record, however, indicates that certain grades of scope PVA are ***. ***.[33] According to *** is similar to PVB-grade PVA in terms of hydrolysis, viscosity, ash, and other physical characteristics.[34]

Interchangeability

The record indicates that scope PVA and PVB-grade PVA are interchangeable in many applications. Although *** asserts that scope PVA cannot be used in the production of PVB because it lacks the low ash content and colorlessness of PVB-grade PVA and is not subject to the same qualification process, ***.[35] *** concedes that PVB-grade PVA can be substituted for scope PVA in many applications, but claims that doing so may not be economical.[36]

Common manufacturing facilities, production processes, and production employees

The record indicates that there is considerable overlap in the manufacturing facilities, production processes, and production employees used to produce scope PVA and PVB-grade PVA. The same two main chemical reactions, polymerization and saponification, are used to produce both scope PVA and PVB-grade PVA.[37] ***.[38] Although ***, it also reports that ***.[39] Indeed, SSCA claims that ***.[40]

Channels of distribution

*** scope PVA and all PVB-grade PVA were sold directly to end users throughout the period examined.[41]

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[31] CR at I-17; PR at I-11.

[32] CR at I-17; PR at I-11.

[33] CR at I-17; PR at I-11.

[34] CR at I-17; PR at I-11.

[35] CR at I-19; PR at I-12.

[36] CR at I-19; PR at I-12.

[37] CR at I-17; PR at I-11.

[38] CR at I-17-18; PR at I-11.

[39] CR at I-18; PR at I-12.

[40] Petitioner's Prehearing Brief at 9-11.

[41] CR at I-20; PR at I-13; CR/PR at Table II-1a.

Customer and producer perceptions

The record indicates that there are similarities and differences between scope PVA and PVB-grade PVA in terms of customer and producer perceptions. According to ***, customers would not perceive scope PVA as a substitute for PVB-grade PVA in PVB production or PVB-grade PVA as an economical substitute for scope PVA in applications other than PVB production.[42] Nevertheless, *** acknowledges that it is possible for PVB-grade PVA to be used by scope PVA customers.[43] *** claims that the differences customers perceive between scope PVA and PVB-grade PVA are no greater than the differences they perceive between all grades of PVA, while producers perceive the differences between specific products on the continuum of PVA products to be relatively minor.[44]

Price

The average unit value of U.S. producers' U.S. shipments of scope PVA was *** that of PVB-grade PVA in 2007 but *** that of PVB-grade PVA in 2008, 2009, and both interim 2009 and interim 2010.[45]

Conclusion

We find that there are more similarities than differences between scope PVA and PVB-grade PVA in terms of our six domestic like product factors. Based on the preceding analysis, we conclude that the similarities between scope PVA and PVB-grade PVA are such that no clear dividing line can be drawn separating scope PVA from PVB-grade PVA along the continuum of PVA products. We therefore define a single domestic like product encompassing both scope PVA and PVB-grade PVA.

III. DOMESTIC INDUSTRY

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[46] 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. Based on our definition of the domestic like product, we define the domestic industry as all producers of PVA, including DuPont, Solutia, and SSCA.[47]

A. Related Parties

We must determine whether any producer of the domestic like product should be excluded from the domestic industry as a related party pursuant to 19 U.S.C. § 1677(4)(B). Subsection 1677(4)(B) 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

[42] CR at I-19; PR at I-12.

[43] CR at I-19; PR at I-12.

[44] CR at I-19; PR at I-12.

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

[46] 19 U.S.C. § 1677(4)(A).

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

importers.[48] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[49]

In the preliminary phase of the investigation, Celanese argued that DuPont should be excluded from the domestic industry as a related party by virtue of its imports of PVA from Taiwan.[50] The Commission found that DuPont was a related party but that circumstances did not warrant its exclusion from the domestic industry.[51]

In the final phase of the investigation, DuPont qualifies as a related party because it was an importer of subject merchandise from Taiwan during the period examined.[52] In addition, DuPont ***.[53] Nevertheless, DuPont produced *** more PVA in the United States than it imported from Taiwan, with the ratio of its imports from Taiwan to its domestic production ranging from *** percent to *** percent during the period examined.[54] DuPont was the *** PVA producer in the United States in 2009, accounting for *** percent of domestic PVA production that year.[55]

***.[56] There is no evidence that DuPont domestic production operations benefitted financially from dumped PVA from Taiwan, however. DuPont's operating profit margin was *** than *** in 2007 and

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[48] 19 U.S.C. § 1677(4)(B).

[49] 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, i.e., 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; and (3) the position of the related producer vis-a-vis the rest of the industry, i.e., whether inclusion or exclusion of the related party will skew the data for the rest of the industry. See, e.g., Torrington Co. v. United States, 790 F. Supp. 1161 (Ct. Int'l Trade 1992), aff'd without opinion, 991 F.2d 809 (Fed. Cir. 1993). The Commission has also considered the ratio of import shipments to U.S. production for related producers and whether the primary interest of the related producer lies in domestic production or importation. These latter two considerations were cited as appropriate factors in Allied Mineral Products, Inc. v. United States, 28 CIT 1861, 1865 (2004) ("The most significant factor considered by the Commission in making the 'appropriate circumstances' determination is whether the domestic producer accrued a substantial benefit from its importation of the subject merchandise."); USEC, Inc. v. United States, 132 F. Supp. 2d 1, 12 (Ct. Int'l Trade 2001) ("the provision's purpose is to exclude from the industry headcount domestic producers substantially benefitting from their relationships with foreign exporters."), aff'd, 34 Fed. Appx. 725 (Fed. Cir. 2002); S. Rep. No. 249, 96th Cong. 1st Sess. at 83 (1979) ("where a U.S. producer is related to a foreign exporter and the foreign exporter directs his exports to the United States so as not to compete with his related U.S. producer, this should be a case where the ITC would not consider the related U.S. producer to be a part of the domestic industry").

[50] PVA from Taiwan, USITC Pub. 3732 at 12.

[51] PVA from Taiwan, USITC Pub. 3732 at 14.

[52] See Hearing Tr. at 20 (Neuheardt), 143 (Becker); CR/PR at Table III-5; 19 U.S.C. § 1677(4)(B).

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

[54] CR/PR at Table III-5. The ratio of DuPont's imports of PVA from Taiwan to its domestic PVA production was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in the first half of 2009, and *** percent in the first half of 2010. Id.

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

[56] CR/PR at Table III-5 n. 1.

2008, but *** than *** in 2009 and both interim 2009 and interim 2010.[57] [58] [59] No party argues that DuPont should be excluded from the domestic industry as a related party.

We find that appropriate circumstances do not exist to exclude DuPont from the domestic industry as a related party. Accordingly, we define the domestic industry to include DuPont, Solutia, and SSCA.

IV. MATERIAL INJURY BY REASON OF IMPORTS OF SUBJECT MERCHANDISE FROM TAIWAN[60]

A. Legal Standards

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[61] 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.[62] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[63] In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[64] 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."[65]

Although the statute requires the Commission to determine whether the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[66] it does not define the phrase "by reason of," indicating that this aspect of the injury analysis is left to the

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[57] CR/PR at Table VI-3. With respect to the merchant market, DuPont's operating profit margin was *** than *** in 2008, but *** than *** in 2007, 2009 and interim 2009 and 2010. Id. at Table VI-9.

[58] Consistent with her practice in past investigations and reviews, Commissioner Aranoff does not rely on individual-company operating income margins, which reflect a domestic producer's financial operations related to production of the domestic like product, in assessing whether a related party has benefitted from importation of subject merchandise. Rather, she determines whether to exclude a related party based principally on its ratio of subject imports to domestic production and whether its primary interests lie in domestic production or importation.

[59] Commissioner Pinkert does not rely upon DuPont's financial performance as a factor in determining whether there are appropriate circumstances to exclude it from the domestic industry in this investigation. The record is not sufficient to infer from its profitability on U.S. operations whether it has derived a specific benefit from importing. See Allied Mineral Products v. United States, 28 CIT 1861, 1865-67 (2004).

[60] Imports of PVA from Taiwan accounted for *** percent of total imports of all PVA by quantity during the most recent 12-month period preceding the filing of the petition for which data are available. CR at IV-7; PR at IV-2. Because subject imports are well above the statutory negligibility threshold, we find that subject imports are not negligible under 19 U.S.C. § 1677(24).

[61] 19 U.S.C. §§ 1671d(b), 1673d(b).

[62] 19 U.S.C. § 1677(7)(B)(i). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[63] 19 U.S.C. § 1677(7)(A).

[64] 19 U.S.C. § 1677(7)(C)(iii).

[65] 19 U.S.C. § 1677(7)(C)(iii).

[66] 19 U.S.C. §§ 1671d(a), 1673d(a).

Commission's reasonable exercise of its discretion.[67] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.[68]

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.[69] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[70] Nor does the "by reason of" standard require that unfairly traded imports be the "principal" cause of injury or

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[67] 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'd, 944 F. Supp. 943, 951 (Ct. Int'l Trade 1996).

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

[69] SAA at 851-52 ("{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

[70] 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 v. USITC, 266 F.3d 1339, 1345 (Fed. Cir. 2001) ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports ... . Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports." (emphasis in original)); Asociacion de Productores de Salmon y Trucha de Chile AG v. United States, 180 F. Supp. 2d 1360, 1375 (Ct. Int'l Trade 2002) ("{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury" or make "bright-line distinctions" between the effects of subject imports and other causes.); see also Softwood Lumber from Canada, Invs. 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, Inc. v. United States, 132 F.3d 716, 722 (Fed. Cir. 1997) (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.").

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.[71] It is clear that the existence of injury caused by other factors does not compel a negative determination.[72]

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."[73] [74] Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[75]

The Federal Circuit's decisions in Gerald Metals, Bratsk, and Mittal Steel all involved cases where the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in Bratsk as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.[76] 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

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

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

[73] 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.

[74] Commissioner Pinkert 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, held that the Commission is required, in certain circumstances when considering present material injury, to undertake a particular kind of analysis of nonsubject imports, albeit without reliance upon presumptions or rigid formulas. Mittal explains as follows:

> What Bratsk held is that "where commodity products are at issue and fairly traded, price-competitive, nonsubject 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 nonsubject 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.

542 F.3d at 878.

[75] 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.").

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

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.[77] 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.[78] [79]

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard.[80] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[81]

B. Conditions of Competition

The following conditions of competition inform our analysis in the final phase of this investigation.

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[77] 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).

[78] Commissioner Lane also refers to her dissenting views in Polyethylene Terephthalate Film, Sheet, and Strip from Brazil, China, Thailand, and the United Arab Emirates, Invs. Nos. 731-TA-1131 to 1134 (Final), USITC Pub. 4040 (Oct. 2008), for further discussion of Mittal Steel.

[79] 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 final phase 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 final phase investigations in which there are substantial levels of nonsubject imports.

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

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

1. Captive Production[82]

In the preliminary phase of the investigation, petitioner Celanese argued that the statutory criteria for application of the captive production provision were satisfied, while respondent CCPC argued that the first and third statutory criteria were not met.[83] The Commission concluded that all elements of the captive production provision were satisfied and thus focused primarily on the merchant market for the domestic like product in determining market share and the factors affecting financial performance, although it analyzed these factors with respect to the entire U.S. market as well.[84]

In the final phase of the investigation, both petitioner and respondents argue that the Commission should find that the captive production provision is satisfied and focus its analysis on the merchant market.[85]

We determine that the threshold criterion for application of the captive production provision has been met because significant production of PVA is internally transferred to make PVB, and significant production is sold on the merchant market. Internal transfers accounted for *** percent of the volume of U.S. producers' U.S. shipments of PVA in 2007, *** percent in 2008, *** percent in 2009, *** percent in January-June 2009, and *** percent in January-June 2010, with the majority of PVA internally consumed in the production of PVB.[86] Commercial shipments accounted for the balance of U.S. producers' U.S. shipments during the period.[87] *** reported transfers to related firms.[88]

We also determine that the first statutory criterion has been met. This criterion focuses on whether any of the domestic like product that is transferred internally for further processing is in fact sold

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[82] The captive production provision, 19 U.S.C. § 1677(7)(C)(iv), which was added to the statute by the Uruguay Round Agreements Act, provides:

> (iv) CAPTIVE PRODUCTION – If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant production of the domestic like product in the merchant market, and the Commission finds that –
>
> > (I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product,
> >
> > (II) the domestic like product is the predominant material input in the production of that downstream article, and
> >
> > (III) the production of the domestic like product sold in the merchant market is not generally used in the production of that downstream article,
>
> then the Commission, in determining market share and the factors affecting financial performance set forth in clause (iii), shall focus primarily on the merchant market for the domestic like product.

The SAA indicates that where a domestic like product is transferred internally for the production of another article coming within the definition of the domestic like product, such transfers do not constitute internal transfers for the production of a "downstream article" for purposes of the captive production provision. SAA at 853.

[83] PVA from Taiwan, USITC Pub. 3732 at 15.

[84] PVA from Taiwan, USITC Pub. 3732 at 15-17; see also PVA from Taiwan, USITC Pub. 3920 at 11 (adopting the Commission's analysis of the captive production provision from the original views on remand).

[85] See Petitioner's Prehearing Brief at 20-24; Respondents' Prehearing Brief at 9-11.

[86] CR at III-13; PR at III-6.

[87] CR at III-13; PR at III-6.

[88] CR at III-13; PR at III-6.

on the merchant market.[89] The record indicates that *** produce and captively consume PVA in the production of PVB.[90] *** internal transfers of PVA entered the merchant market for PVA.[91]

In applying the second statutory criterion, we generally consider whether the domestic like product is the predominant material input into a downstream product by referring to its share of the raw material cost of the downstream product.[92] *** captively consumed PVA in the production of ***, and PVA accounted for *** percent of the raw material cost of this downstream product.[93] *** captively consumed PVA in the production of ***, and PVA accounted for *** percent and *** percent of the raw material cost of these downstream products, respectively.[94] Although ***.[95] Thus, we find that PVA was the predominant raw material input with respect to downstream production of ***. Because PVA was the predominant raw material input with respect to these primary downstream products, we find the second statutory criterion to be satisfied.

In applying the third statutory criterion, we inquire into whether the merchant market purchaser is generally using the domestic like product in the production of the same downstream article or articles as the integrated domestic producer.[96] If the merchant market purchaser is not generally using the domestic like product in the production of the same downstream article or articles as the integrated domestic producer, then the statutory criterion is satisfied. The record of the final phase of this investigation indicates that in 2009 ***, or *** percent of the *** of domestically produced PVA sold into the merchant market, were used to produce PVB, which is the primary downstream article produced from internally consumed PVA.[97] Although the percentage of commercial shipments of PVA used to produce PVB was higher in the final phase of the investigation, at *** percent, than it was in the preliminary

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[89] See, e.g., Hot-Rolled Steel Products from Argentina and South Africa, Inv. Nos. 701-TA-404, 731-TA-898, 905 (Final), USITC Pub. 3446 at 15-16 (Aug. 2001); Certain Cold-Rolled Steel Products from Argentina, Brazil, China, Indonesia, Japan, Russia, Slovakia, South Africa, Taiwan, Turkey and Venezuela, Inv. Nos. 701-TA-393 and 731-TA-829 to 840 (Final) (Remand), USITC Pub. 3691 at 2 & n.19 (May 2004); see also Polyethylene Terephthalate Film, Sheet, and Strip from India and Taiwan, Inv. Nos. 701-TA-415 (Final) and 731-TA-933-934 (Final), USITC Pub. 3518 (June 2002) at 11 (Commissioner Bragg dissenting).

[90] CR at III-14; PR at III-6.

[91] CR at III-14; PR at III-6.

[92] See, generally, e.g., Polyethylene Terephthalate Film, Sheet and Strip from Brazil, China, Thailand, and the Unite Arab Emirates, Inv. Nos. 731-TA-1131-1134 (Final), USITC Pub. 4040 (October 2008) at 17, n. 103; Polyethylene Terephthalate Film, Sheet, and Strip from India and Taiwan, Inv. Nos. 701-TA-415 (Final) and 731-TA-933-934 (Final), USITC Pub. 3518 (June 2002) at 11 & n. 51. The Commission has construed "predominant" material input to mean the main or strongest element, and not necessarily a majority, of the inputs by value. See Polyvinyl Alcohol from Germany and Japan, Inv. Nos. 731-TA-1015-1016 (Final), USITC Pub. 3604 (June 2003) at 15 n. 69.

[93] Memorandum INV-JJ-014 (Feb. 18, 2010) at III-14 & n. 25. *** also reported that it captively consumed PVA in the production of ***, with PVA accounting for *** percent and *** accounting for *** percent of total raw material costs. Id. More specifically, ***. Id. Consequently, ***. We also note that DuPont itself, in its prehearing brief filed jointly with CCPC, argues that the second statutory criterion of the captive production provision is satisfied because "the domestic like product is the main material input and accounts for a significant percentage of the total raw material costs in the production of the downstream article captively produced (i.e., PVB)." Respondents' Prehearing Brief at 10.

[94] Memorandum INV-JJ-014 (Feb. 18, 2010) at III-14 & n. 25.

[95] Memorandum INV-JJ-014 (Feb. 18, 2010) at III-14 & n. 25.

[96] See Polyvinyl Alcohol from Taiwan, Inv. No. 731-TA-1088 (Preliminary), USITC Pub. 3732 (October 2004) at 16-17; Liquid Sulfur Dioxide from Canada, Inv. No. 731-TA-1098 (Preliminary), USITC Pub. 3826 (December 2005) at 12.

[97] CR at III-15; PR at III-7.

phase of the investigation, at *** percent,[98] this percentage is still within the range of percentages in previous investigations where we have found the third criterion satisfied.[99] We therefore find the third statutory criterion to be satisfied.

Because we conclude that all elements of the statutory captive production provision are met, we focus primarily on the merchant market for the domestic like product in determining market share and the factors affecting financial performance, although we analyze these factors with respect to the whole PVA market as well.

2. Demand Conditions

PVA demand is affected by changes in overall economic activity, some seasonality, and demand for the downstream products in which PVA is an input.[100] In the merchant market, apparent U.S. consumption of PVA declined from *** pounds in 2007 to *** pounds in 2008 and *** pounds in 2009 (a level *** percent lower than in 2007), but was *** percent higher in the first half of 2010, at *** pounds, than in the first half of 2009, at *** pounds.[101] In the overall market, apparent U.S. consumption of PVA declined from *** pounds in 2007 to *** pounds in 2008 and *** pounds in 2009 (a level *** percent lower than in 2007), but was *** percent higher in the first half of 2010, at ***, than in the first half of 2009, at *** pounds.[102] The significant decline in PVA demand between 2007 and 2009 resulted in large part from the recession, but also from continued weakness in key end-use markets, including construction and textiles.[103] Although apparent U.S. consumption of PVA recovered in 2010 along with the economy, annualized apparent U.S. consumption in the first half of 2010 remained below 2007 and 2008 levels.[104]

The PVA market is a mature one with few new applications likely to spur significant demand growth. The top end-use applications for U.S. shipments of PVA in 2009, based on their share of apparent U.S. consumption, included PVB (*** percent), paper (*** percent), adhesives (*** percent), emulsion polymerization (*** percent), textiles (*** percent), and building materials (*** percent).[105] There is little evidence on the record to suggest that emerging applications for PVB will imminently result in significantly increased PVA demand. Although increased production of photovoltaic cells might spur

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[98] CR at III-15 & n. 30; PR at III-7.

[99] See Hot-Rolled Steel Products from Argentina and South Africa, Inv. Nos. 701-TA-404 (Final) and 731-TA-909 and 905 (Final), USITC Pub. 3446 (August 2001) at 16 (finding the third criterion satisfied where 85.7 percent of internal consumption was devoted to cold-rolled steel compared to 2.6 to 22.4 percent of merchant market shipments); Certain Cold-Rolled Steel Products From Australia, India, Japan, Sweden, and Thailand, Inv. Nos. 731-TA-965, 971-972, 979, and 981 (Final), USITC Pub. 3536 (September 2002) at 22-23 (finding the third criterion satisfied where more than 84 percent of cold-rolled steel sold on the merchant market was not used in the production of the principal downstream articles produced captively).

[100] CR at II-9, 28; PR at II-6, 16.

[101] CR/PR at Table C-6.

[102] CR/PR at Table IV-5b.

[103] CR at II-28-29 & n.48; PR at II-17 & n.48.

[104] CR/PR at Table IV-5b. When domestic producers, importers, and purchasers were asked to characterize changes in demand for scope PVA between January 2007 and June 2010, 7 of 19 respondents reported that demand had declined and only one reported that demand had increased, while 9 reported that demand had fluctuated and 2 reported no change. CR at II-36. We also note that SSCA claims that the increase in apparent U.S. consumption of PVA in the first half of 2010 is more attributable to purchaser efforts to restock inventories depleted during the recession than to increased consumption of PVA. Petitioner's Prehearing Brief at 28; Hearing Tr. at 27-28 (Neuheardt).

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

some additional PVA demand, PVA competes with ethyl vinyl acetate ("EVA") for use in this application, and lower-cost EVA reportedly accounts for approximately 82 percent of demand in this application.[106] PVA demand for use in PVA films is projected to grow *** percent annually in 2011 and 2012, but *** it would generate only around *** million pounds of additional PVA demand in 2011.[107]

3. Supply Conditions

The U.S. PVA market is supplied by domestic producers, subject imports from Taiwan, and nonsubject imports. There are three domestic producers of PVA – DuPont, SSCA, and Solutia.[108] U.S. commercial shipments by DuPont and SSCA accounted for *** percent of apparent U.S. consumption in the merchant market in 2009; U.S. shipments by DuPont, SSCA, and Solutia accounted for *** percent of total apparent U.S. consumption in 2009.[109] SSCA, which acquired Celanese's PVA operations on July 1, 2009, accounted for *** percent of domestic PVA production in 2009.[110] DuPont, which produces only certain fully hydrolized PVA domestically and rounds out its product line with partially hydrolized and other PVA imported from Taiwan, accounted for *** percent of domestic PVA production in 2009.[111] Solutia accounted for *** percent of domestic PVA production in 2009.[112] Because the domestic industry's capacity exceeded apparent U.S. consumption by a significant quantity throughout the period examined, domestic producers exported a significant proportion of their production.[113]

As discussed, the domestic industry captively consumed a significant proportion of its PVA production in the production of PVB products during the period examined, including *** percent of production in 2009.[114] Specifically, Solutia captively consumed all of its PVA production during the period examined, and DuPont captively consumed between *** and *** percent of its PVA production in each full year of the period.[115] Although Celanese captively consumed a portion of its PVA production in the production of *** prior to SSCA's acquisition of its PVA operations on July 1, 2009, SSCA produces PVA for sale *** in the merchant market and ***.[116]

The industry in Taiwan is believed to consist of only CCPC.[117] CCPC is capable of producing *** in-scope PVA and expanded its capacity by *** percent in 2009 to *** pounds.[118] U.S. commercial

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[106] See Andy Brice, "Encapsulants Demand Heats Up," ICIC Chemical Business (July 5, 2010), attached as Exhibit 12 to Petitioner's Posthearing Brief; Hearing Tr. at 244 (Gabbert); Petitioner's Responses to Commissioner Questions at 40, 42.

[107] See Purchaser's Questionnaire Response of *** at Questions II-6, III-7; Petitioner's Responses to Commissioner Questions at 41.

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

[109] CR/PR at Tables C-3, C-6. Solutia made no merchant market shipments during the period examined.

[110] CR at III-1-2; PR at III-1; CR/PR at Table III-1.

[111] CR at III-2, 16, IV-5-6; PR at III-2, IV-2; CR/PR at Table III-1.

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

[113] Compare CR/PR at Table III-2b with id at Tables III-3b and IV-4b.

[114] Compare CR/PR at Table III-2b with id. at Table III-3b.

[115] CR at III-2-3; PR at III-1-2.

[116] CR at III-2; PR at III-1; CR/PR at Table V-2. When SSCA acquired Celanese's PVA operations, ***. CR at I-13; PR at I-9.

[117] CR at VII-1; PR at VII-1.

[118] CR at VII-2; PR at VII-1; CR/PR at Table VII-1.

shipments of subject imports accounted for *** percent of apparent U.S. consumption in the merchant market in 2009 and *** percent of apparent U.S. consumption in the U.S. market as a whole in 2009.[119]

PVA was also imported from 22 nonsubject countries during the period examined, with the top four nonsubject countries (Japan, Germany, China, and Singapore) accounting for 80.5 percent of those nonsubject PVA imports.[120] Antidumping duty orders were imposed on imports from China, Japan, and Korea in 2003, with high antidumping duty deposit rates applicable to all producers in those countries with the exception of Chinese producer SVW.[121] U.S. commercial shipments of nonsubject imports accounted for *** percent of apparent U.S. consumption in the merchant market in 2009 and *** percent of apparent U.S. consumption in the U.S. market as a whole in 2009.[122]

According to SSCA, the domestic industry produces different grades of PVA in a technically determined sequence so as to minimize the downtime associated with the adjustments to production equipment and raw material inputs necessary to go from producing one grade of PVA to another.[123] PVA producers minimize such downtime, and maximize their productivity, by adjusting incrementally the viscosity and hydrolysis of the PVA products produced.[124] To this end, PVA producers carefully plan production "campaigns" to produce the requisite range of PVA products for inventory based on the projected demand for each grade.[125] Producers project demand based on forecasts provided on a regular basis by their customers.[126] Once a campaign has begun, a PVA producer cannot alter its production schedule to satisfy unanticipated demand for a particular grade of PVA without incurring significantly increased costs.[127]

There were supply disruptions during the period examined. Celanese declared force majeure between May 14, 2007 and January 28, 2008 due to an unplanned outage at its acetic acid production facility, and DuPont declared force majeure between September 24, 2008 and November 6, 2008 due to hurricane damage to its plant.[128] SSCA claims that Celanese was able to ***.[129] It also claims that the overall supply shortfall to its U.S. customers resulting from the force majeure events was less than three percent.[130] Respondents concede that the actual supply disruption as a result of Celanese's declaration of force majeure was "modest."[131] There is some evidence that purchasers were unable to procure PVA in the desired quantities from SSCA in the first half of 2010, though it is unclear whether this resulted from supply disruptions or SSCA's inability to satisfy customer orders for quantities of PVA in excess of the

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[119] CR/PR at Tables C-3, C-6.

[120] CR at II-27; PR at II-16.

[121] See CR/PR at Table I-1; 68 Fed. Reg. 39518 (July 2, 2003) (Japan); 68 Fed. Reg. 58169 (Oct. 1, 2003) (China); 68 Fed. Reg. 56621 (Oct. 1, 2003) (Korea). SVW was not excluded from the order on China, but was assigned a de minimis rate and is therefore not required to post a deposit.

[122] CR/PR at Tables C-3, C-6.

[123] Petitioner's Prehearing Brief at 9-10. DuPont does not challenge SSCA's characterization of the production campaigns used to produce different PVA products.

[124] Petitioner's Prehearing Brief at 10.

[125] Petitioner's Prehearing Brief at 9-10; Hearing Tr. at 22-23 (Neuheardt), 36 (Sikora), 102 (Neuheardt).

[126] Hearing Tr. at 36 (Sikora), 39 (Lutz)

[127] Petitioner's Prehearing Brief at 11.

[128] ***. *** volume of acetic acid for its production of vinyl acetate monomer ("VAM"), which is the primary raw material input in the production of PVA. CR at I-12; PR at I-9.

[129] Petitioner's Prehearing Brief at 30.

[130] Petitioner's Posthearing Brief at 8; Hearing Tr. at 34 (Sikura).

[131] Respondents' Prehearing Brief at 19.

customers' forecasted demand.[132] When asked to discuss any supply problems, 12 of 22 responding purchasers, including 11 that purchased domestic PVA, reported no supply disruptions, while 10 responding purchasers reported supply disruptions mostly due to Celanese's declaration of force majeure.[133]

Moreover, supply disruptions were not confined to domestic producers. When asked to report any supply problems, two of five importers reported disruptions in the supply of subject imports from Taiwan during the period examined.[134] *** importer of PVA from Taiwan,[135] reported that PVA supplies from Taiwan were disrupted from the third quarter of 2007 through the first quarter of 2008, and *** reported late shipments and unavailability of PVA from Taiwan in October 2007.[136] ***.[137]

Another relevant condition of competition is the capital intensive nature of PVA production. PVA producers must operate their production facilities at a high rate of capacity utilization to reduce their unit fixed costs to an economic level.[138] SSCA reported that it pursues export opportunities as a means of boosting its rate of capacity utilization and reducing its unit fixed costs, but prioritizes U.S. customers over export customers due to the higher PVA prices prevailing in the U.S. market.[139]

Finally, we note that raw material costs represented the largest component of the domestic industry's net cost of goods sold, at *** percent over the entire period examined.[140] The principal raw material inputs in PVA production are ethylene, acetic acid, and methanol.[141] Ethylene derived from natural gas is reportedly the primary feedstock used in the PVA production process.[142] Natural gas prices fluctuated over the period examined, increasing from $8.01 per thousand cubic feet ("Mcf") in the first quarter of 2007 to a period high of $11.16 per Mcf in the second quarter of 2008, decreasing sharply to a period low of $4.31 per Mcf in the third quarter of 2009, rebounding to $6.49 per Mcf in the first quarter of 2010, declining again to $4.98 per Mcf in the second quarter of 2010, and finally increasing marginally

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[132] ***. Purchaser's Questionnaire Response of *** at 16. Specifically, ***. See Petitioner's Prehearing Brief at 31-32. ***. Id. at 32.

Respondents also provided evidence allegedly showing that *** was unable to procure PVA in the desired quantities from *** in 2010, ***. See Respondents' Posthearing Brief at 8-10, Exhibit 12 at 18. Again, ***. Petitioner's Final Comments at 9. ***. See Respondents' Posthearing Brief at 8-10, Exhibit 12.

[133] CR at II-21; PR at II-13. Only *** and *** reported any supply disruptions from *** other than the force majeure declaration by Celanese. CR at II-21 & n.32; PR at II-13 & n.32; Purchasers' Questionnaire Responses of *** and *** at Question III-12.

[134] CR at II-26; PR at II-15. None of the 22 responding purchasers reported supply disruptions with respect to imported PVA from Taiwan. Id.

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

[136] CR at II-26; PR at II-15. In the sunset reviews of the antidumping duty orders on PVA from China, Japan, and Korea, ***. Id.

[137] CR at II-27; PR at II-15. ***. Respondents' Posthearing Brief, Exhibit 9 at 12-13. ***. Id. at 22-23.

[138] Hearing Tr. at 23 (Neuheardt); Petitioner's Prehearing Brief at 14-15 (claiming that fixed costs accounted for *** percent of SSCA's total costs).

[139] Hearing Tr. at 24 (Neuheardt); see also Respondents' Posthearing Brief at Exhibit 14 (projecting *** higher PVA prices in North America than in other regions in every month of 2011).

[140] CR at V-2; PR at V-1.

[141] CR at V-2; PR at V-1.

[142] CR at V-2; PR at V-1.

to $5.06 per Mcf in the third quarter of 2010.[143] When asked to describe raw material price trends, *** reported that raw material prices "***, while *** reported that raw material prices ***.[144]

4. Substitutability

The record indicates that there is at least a moderate level of substitutability in demand between domestic scope PVA and subject imports.[145] Most responding purchasers reported that the domestic like product and subject imports are comparable in terms of the 19 purchasing factors listed in the purchasers' questionnaires.[146] Fifteen of 18 responding purchasers and seven of eight responding importers reported that subject imports and the domestic like product are always or frequently used interchangeably, while the two responding domestic producers ***.[147] Fifteen of 24 purchasers reported purchasing both subject imports and the domestic like product, while *** reported purchasing the domestic like product and importing PVA from Taiwan.[148] There was a significant volume of sales of both subject imports and the domestic like product with respect to all five pricing products.[149]

The record also indicates that price is an important consideration in purchasing decisions, although not necessarily the most important factor. When asked to rank the three most important factors in their purchasing decisions, only two of 24 responding purchasers reported that price was their number one purchasing factor, and another 16 of 24 responding purchasers ranked price as their second or third most important purchasing factor.[150] When asked to rate the importance of 19 listed purchasing factors, 16 of 24 responding purchasers rated "price" as "very important."[151] Eleven of 16 responding purchasers reported that non-price factors are only sometimes or never relevant to purchasing decisions, although domestic producers and importers were evenly divided on the question.[152]

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[143] CR at V-2-3; PR at V-1-2; CR/PR at Figure V-1. Ethylene and acetic acid are combined to produce VAM, which is polymerized and combined with methanol to produce PVA. CR at V-2; PR at V-1-2.

[144] CR at V-4; PR at V-3.

[145] CR at II-45; PR at II-26-27.

[146] CR/PR at Table II-10. There were only a few exceptions. Four of 15 purchasers rated the domestic like product inferior to subject imports in terms of reliability of supply and technical support/services and 3 of 15 responding purchasers rated the domestic like product inferior to subject imports in terms of lower price (i.e., the domestic like product was priced higher) and lower U.S. transportation costs. Id. Three of 15 responding purchasers rated the domestic like product superior to subject imports in terms of delivery time. Id.

[147] CR/PR at Table II-9. Specifically, ***. Domestic Producers' Questionnaire Responses of *** at Question IV-27.

[148] CR/PR at Tables II-3 and II-4.

[149] See CR/PR at Tables V-4-8.

[150] CR at II-49; PR at II-28; CR/PR at Table II-7. Other purchasing factors identified by responding purchasers as their number one factor included availability (8), quality (4), product meeting company specifications (3), and pre-arranged contracts (3). Id.

[151] CR at II-51; PR at II-28. Other purchasing factors that responding purchasers rated as "very important" included availability (22), product consistency (22), reliability of supply (22), hydrolysis (20), availability of preferred type (20), viscosity (19), delivery time (18), and quality meets industry standards (18). Id.

[152] CR/PR at Table II-11. Specifically, ***. Domestic Producers' Questionnaire Responses of *** at Question IV-28. Three responding importers reported that differences other than price are always or frequently significant, while three other responding importers reported that such differences are sometimes or never significant. CR/PR at Table II-11.

C. Volume of Subject Imports

Section 771(7)(C)(i) of the 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."[153]

Subject import volume increased *** percent between 2007 and 2008, from *** pounds to *** pounds, but then declined *** percent to *** pounds in 2009, a level *** percent lower than in 2007.[154] Subject import volume was *** percent higher in the first half of 2010, at *** pounds, than in the first half of 2009, at *** pounds.[155] U.S. shipments of subject imports followed a similar trend, increasing *** percent between 2007 and 2008, from *** pounds to *** pounds, before declining *** percent to *** pounds in 2009, a level *** percent lower than in 2007.[156] U.S. shipments of subject imports were *** percent higher in the first half of 2010, at *** pounds, than in the first half of 2009, at *** pounds.[157]

U.S. shipments of subject imports as a share of apparent U.S. consumption in the merchant market increased from *** percent in 2007 to *** percent in 2008, then declined to *** percent in 2009, a level still *** percentage points higher than in 2007.[158] U.S. shipments of subject imports as a share of apparent U.S. consumption in the merchant market were *** percentage points lower in the first half of 2010, at *** percent, than in the first half of 2009, at *** percent.[159]

U.S. shipments of subject imports as a share of apparent U.S. consumption in the overall market, including captive consumption and merchant market sales, increased from *** percent in 2007 to *** percent in 2008, then declined to *** percent in 2009, a level still *** percentage points higher than in 2007.[160] U.S. shipments of subject imports as a share of apparent U.S. consumption in the overall market were *** percentage points lower in the first half of 2010, at *** percent, than in the first half of 2009, at *** percent.[161]

The ratio of subject imports to domestic industry production increased from *** percent in 2007 to *** percent in 2008, then declined to *** percent in 2009, a level still *** percentage points higher than in 2007.[162] The ratio of subject imports to domestic industry production was *** lower in the first half of 2010, at *** percent, than in the first half of 2009, at *** percent.[163]

Based on these data, we find that subject import volume is significant, both in absolute terms and relative to consumption and production in the United States, and that the increase in subject import

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[153] 19 U.S.C. § 1677(7)(C)(i).

[154] CR/PR at Table IV-2b.

[155] CR/PR at Table IV-2b.

[156] CR/PR at Tables IV-4b, C-3.

[157] CR/PR at Tables IV-4b, C-3.

[158] CR/PR at Table C-6.

[159] CR/PR at Table C-6. SSCA contends that the domestic industry's apparent market share gain in the first half of 2010 was the result of distortions caused by SSCA's acquisition of Celanese's PVA operations in July 2009, and specifically the reclassification of PVA that had formerly been captively consumed by Celanese as merchant market sales by SSCA to Celanese. Petitioner's Posthearing Brief at 4; Petitioner's Responses to Commissioner Questions at 52. Excluding these sales, SSCA calculates that the subject import share of apparent U.S. consumption in the merchant market was *** percent in the first half of 2010. Petitioner's Responses to Commissioner Questions at 52, Exhibit 7. We note that SSCA's adjusted market share data do not significantly alter the trend in subject import market share over the period examined, including the interim period.

[160] CR/PR at Table IV-5b.

[161] CR/PR at Table IV-5b.

[162] CR/PR at Table IV-6b.

[163] CR/PR at Table IV-6b.

volume and market share over the period examined is also significant. Subject import market share was significantly higher in 2009 than in 2007, particularly in the merchant market.[164] Subject import volume was significantly higher in the first half of 2010 than in the first half of 2009,[165] and the subject import share of the merchant market and the overall market remained at a high level in the first half of 2010.[166] Most of the increase in subject import market share over the period examined came at the direct expense of the domestic industry, whose share of the merchant market declined from *** percent in 2007 to *** percent in 2009 and was *** percent in the first half of 2010.[167]

We find additional support for our finding that subject import volume and market share are significant in the data collected in the preliminary phase of the investigation for 2001-2003 and the first halves of 2003 and 2004.[168] These data indicate that subject import volume and market share have increased almost continually during the periods for which data have been collected[169] and that subject import volume, U.S. shipments, and market share ranged significantly higher during the period examined in the final phase of the investigation than during the period examined in the preliminary phase of the investigation.[170] These longer term trends also appear to conflict with the testimony offered by a CCPC

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[164] See CR/PR at Tables IV-2b, IV-5b and C-6.

[165] CR/PR at Table IV-2b.

[166] See CR/PR at Tables IV-5b and C-6.

[167] CR/PR at Table C-6. We recognize that the domestic industry also lost market share to nonsubject imports and that the increase in subject import market share between 2007 and 2008 also impacted nonsubject import market share. See id. Due in part to the domestic industry's loss of market share to subject imports, the ratio of subject imports to domestic production was also higher in 2009 than in 2007 and remained significant in the first half of 2010, although slightly lower than in the first half of 2009. CR/PR at Table IV-6b.

[168] We predicate our determination that the domestic industry is suffering present material injury by reason of subject imports primarily on the data collected in the final phase of the investigation, given that it is the most recent data available. Due to the unique circumstances of this case, however, we find that an examination of the data collected in the preliminary phase of the investigation provides a useful historical backdrop for our material injury analysis. See Nucor Corp. v. United States, 414 F.3d 1331, 1337 (Fed Cir. 2005) (quoting Kenda Rubber Indus. Co. v. United States, 10 C.I.T. 120, 630 F. Supp. 354, 359 (Ct. Int'l Trade 1986)) ("[B]ecause the statute 'does not expressly command the Commission to examine a particular period of time . . . the Commission has discretion to examine a period that most reasonably allows it to determine whether a domestic industry is injured by [less than fair value] imports.'").

[169] Subject import volume increased *** percent between 2001 and 2003, from *** pounds to *** pounds, and was *** percent higher in the first half of 2004, at *** pounds, than in the first half of 2003, at *** pounds. Preliminary Confidential Staff Report ("PCR") at Table IV-1. U.S. shipments of subject imports as a share of apparent U.S. consumption in the merchant market increased from *** percent in 2001 to *** percent in 2003 and were *** percent in the first half of 2004, up from *** percent in the first half of 2003. Memorandum INV-BB-130 (Oct. 21, 2004) at Table C-2. As addressed above, subject import volume increased significantly between 2007 and 2008 and was significantly higher in the first half of 2010 than in the first half of 2009, although subject import volume declined significantly between 2008 and 2009 to a level lower than in 2007. CR/PR at Table IV-2b. Subject import market share increased significantly between 2007 and 2009, particularly in the merchant market, and remained significant in the first half of 2010, although down from the first half of 2009. CR/PR at Tables IV-5b and C-6.

[170] Subject import volume ranged from *** to *** pounds during the 2007-2009 period, up from *** to *** pounds during the 2001-2003 period. Compare CR/PR at Table IV-2b with PCR/PPR at Table IV-1. Subject import volume was *** pounds in the first half of 2010, but only *** pounds in the first half of 2004. Id. U.S. shipments of subject imports ranged from *** to *** pounds during the 2007-2009 period, up from *** to *** pounds during the 2001-2003 period. Compare CR/PR at Table IV-4b with PCR/PPR at Table IV-4. U.S. shipments of subject imports were *** million pounds in the first half of 2010, but only *** million pounds in the first half of 2004. Id. U.S. shipments as a share of apparent U.S. consumption in the merchant market ranged from *** percent to *** percent

(continued...)

official that CCPC "has kept a longstanding business practice of actively managing its participation in the market so as to maintain a steady market share in the United States . . . ."[171]

Although we recognize that a portion of the increase in subject import volume and market share between 2007 and 2008 resulted from the declarations of force majeure by Celanese and DuPont,[172] we find that the record as a whole does not support respondents' claim that shortages of domestically produced PVA pulled significant volumes of subject imports into the U.S. market. SSCA maintains, and respondents do not deny,[173] that the actual supply shortfall resulting from Celanese's declaration of force majeure was only around three percent and was largely confined to 2007.[174] DuPont's declaration of force majeure lasted only six weeks in late 2008, and only *** reported any disruption in domestic PVA supplies from DuPont during the period examined.[175] Moreover, two of five responding importers, including ***, reported supply disruptions from *** during 2007 and 2008, and *** reported that ***[176] Given that most of the modest disruption to domestic PVA supply occurred in 2007, and that CCPC was little more reliable than domestic producers during the period, we find that the force majeure events in 2007 and 2008 do not explain the significant increase in subject import volume and market share over the period.[177] Nor do the force majeure events explain the significant increase in subject import market share between 2007 and 2009, or the fact that subject import market share remained at an elevated level in the first half of 2010. For these reasons, we find that the force majeure events of 2007 and 2008 do not detract from the significance of the subject import volume and market share during the period examined.

For all of these reasons, we conclude that subject import volume is significant, both in absolute terms and relative to consumption and production in the United States, and that the increase in subject import volume and market share over the period examined also is significant.

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[170] (...continued)
over the 2007-2009 period, up from *** percent to *** percent over the 2001-2003 period. Compare CR/PR at Table C-6 with Memorandum INV-BB-130 (Oct. 21, 2004) at Table C-2. U.S. shipments of subject imports as a share of apparent U.S. consumption in the merchant market were *** percent in the first half of 2010, but only *** percent in the first half of 2004. Id.

[171] Hearing Tr. at 148-49 (Chen). In response to Commissioner Aranoff's request for evidence supporting Mr. Chen's claim that CCPC has long limited its participation in the U.S. market to a fairly constant market share, Hearing Tr. at 232-33, ***. Because both documents concern CCPC's exports of PVA to the U.S. market in 2010, neither document supports Mr. Chen's testimony that CCPC "has kept a longstanding business practice of actively managing its participation in the market so as to maintain a steady market share in the United States . . . ." Hearing Tr. at 148-49.

[172] See, e.g., Respondents' Posthearing Brief, Exhibit 6.

[173] See Respondents' Prehearing Brief at 18-19.

[174] See Petitioner's Posthearing Brief at 8 & n. 8; Hearing Tr. at 34 (Sikura) (estimating a supply shortfall of 3 percent in 2007).

[175] See CR at II-21, 23; PR at II-13, 14.

[176] CR at II-26-27; PR at II-15. ***. CR at II-26-27; PR at II-15.

[177] There is little evidence that purchasers reacted to the force majeure events by further diversifying their sources of PVA, as respondents argue. See Respondents' Prehearing Brief at 17-18. SSCA claims that purchasers have long sourced from multiple PVA suppliers to mitigate the risk of supply disruptions, beginning before the force majeure events. See Hearing Tr. at 42 (Lutz); Petitioner's Posthearing Brief at 8. Indeed, a witness for respondent DuPont testified in the preliminary phase of the investigation, on September 28, 2004, that "our customers have accelerated the large industrial trend of seeking and maintaining multiple sources of all of their key raw materials, such as PVA . . . to ensure a reliable supply stream in an era of supply crunches and just-in-time delivery." Staff Conference Transcript at 72 (McCord). In the final phase of this investigation, 10 of 21 responding purchasers reported having a multi-country sourcing policy, whereas the remaining 11 responding purchasers reported they had no such policy. CR at II-15; PR at II-10.

D. Price Effects of the Subject Imports

> Section 771(C)(ii) of the Act provides that, in evaluating the price effects of subject imports, the Commission shall consider whether – (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.[178]

As addressed in section IV.B.4. above, the record indicates that there is a moderate level of substitutability in demand between subject imports and the domestic like product and that price is an important consideration in purchasing decisions.[179] Although a significant share of U.S. shipments of domestically produced PVA is sold pursuant to long-term contracts, including *** percent of such shipments in 2009, *** reported that prices for scope PVA *** during the contract period, and *** contracts ***.[180] Ten of 21 responding purchasers reported mentioning competing prices during their contract negotiations, while 11 reported not mentioning competing prices.[181] Thus, the *** proportion of the domestic industry's U.S. shipments of PVA sold pursuant to long-term contracts does not insulate domestic producers from subject import price competition to a significant degree.

The Commission requested domestic producers and importers of PVA from Taiwan to provide quarterly sales data for the quantity and net f.o.b. value of five PVA products, all within the scope of the investigation.[182] One domestic producer, ***, and two importers of scope PVA from Taiwan, ***, provided usable price data for sales of the requested products.[183] Pricing data reported by *** accounted for *** percent of the domestic industry's U.S. commercial shipment quantity of U.S.-produced scope PVA during the January 2007-June 2010 period, while pricing data reported by *** accounted for *** percent of the total reported U.S. commercial shipment quantity of scope PVA imported from Taiwan during the period.[184]

Sales price data indicate that subject imports pervasively undersold the domestic like product during the period examined at significant margins of underselling. Between January 2007 and June 2010, subject imports undersold the domestic like product in 58 of 70 quarterly comparisons, or 82.9 percent of the time, at margins ranging from *** to *** percent.[185] Moreover, the frequency and severity of the underselling increased over the period examined. The frequency of underselling increased irregularly from *** of *** quarterly comparisons in 2007 (or *** percent of the time) to *** of *** quarterly comparisons in 2008 (or *** percent of the time), *** of *** quarterly comparisons in 2009 (or ***

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[178] 19 U.S.C. § 1677(7)(C)(ii).

[179] See CR at II-45, 49, 51; PR at II-26-28; CR/PR at Tables II-7, 8a, 8b, 9-11.

[180] CR at V-7; PR at V-5. ***. Id. ***. See CR/PR at Table V-2. In addition, SSCA claims that ***. Petitioner's Responses to Commissioner Questions at 53. According to SSCA, ***. Id. Although the supply uncertainty created by the force majeure events probably created a temporary spike in demand for subject imports that exceeded the actual Celanese supply shortfall when viewed in hindsight, the effect was short lived and subject import market share did not decline meaningfully afterwards.

[181] CR at V-8; PR at V-5.

[182] CR at V-21; PR at V-7.

[183] CR at V-22; PR at V-8.

[184] CR at V-22-23; PR at V-8-9.

[185] CR/PR at Table V-10. Subject imports oversold the domestic like product in 11 of 70 quarterly comparisons, or 15.7 percent of the time, at margins ranging from *** to *** percent. Id. Subject imports were priced the same as the domestic like product in one quarterly comparison. Id.

percent of the time), and *** of *** quarterly comparisons in the first half of 2010 (or *** percent of the time).[186] The magnitude of the underselling margins increased irregularly over the period examined as well, from a range of *** to *** percent in 2007 to ranges of *** to *** percent in 2008, *** to *** percent in 2009, and *** to *** percent in the first half of 2010.[187] The record also indicates that subject import underselling was more pervasive in the final phase of the investigation than in the period examined in the preliminary phase of the investigation, during which underselling and overselling occurred in an equal number of quarterly comparisons.[188] Based on this evidence, we find that subject import price underselling was significant during the period examined and also increased significantly in frequency and severity over the period.

We find additional support for our finding of significant subject import underselling in confirmed lost sales and revenue allegations.[189] Of the seven SSCA allegations to which purchasers responded, purchasers agreed with *** lost sales allegations totaling *** pounds and valued at $*** and *** lost revenue allegations totaling $*** and involving *** pounds of PVA.[190]

We are not persuaded by respondents' argument that the pricing data on the record are not probative for purposes of analyzing subject import underselling because PVA prices are influenced by a host of factors other than grade, including subjective "value-in-use" assessments, negotiations with specific customers, and the inclusion in PVA prices of the cost of technical and other services offered by some suppliers but not others.[191] Although prices for the same grade of PVA can vary between consuming industries, evidence that more valuable end products do not consistently result in higher returns for PVA producers conflicts with respondents' argument that PVA prices are significantly influenced by "value-in-use" assessments.[192]

Nor is there evidence that reported sales of domestically produced pricing products went to different consuming industries than reported sales of subject imported pricing products, as would be necessary for the variation in PVA prices across industries to influence our price comparisons. To the contrary, 16 of 24 responding purchasers reported purchasing both the domestic like product and subject imports, suggesting that PVA from both sources is often purchased by the same customers in the same consuming industries.[193]

Finally, we recognize that SSCA and DuPont sometimes provide technical and other services to their PVA customers, ***, but there is little evidence on the record to suggest that this factor would significantly influence our price comparisons.[194] ***, and a witness for DuPont testified that he included the cost of technical services in DuPont's price of PVA in the past but does not do so currently.[195] A

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

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

[188] During the January 2001-June 2004 period examined in the preliminary phase of the investigation, subject imports undersold the domestic like product in 34 of 70 quarterly comparisons, oversold the domestic like product in 34 quarterly comparisons, and were priced the same as the domestic like product in 2 quarterly comparisons. PCR at V-28-29; PCR/PPR at Table V-6.

[189] CR at V-42; PR at V-14.

[190] CR/PR at Tables V-11-12.

[191] See Respondents' Prehearing Brief at 28-30; Respondents' Posthearing Brief at 5 n.9; Petitioner's Responses to Commissioner Questions at 6-7.

[192] CR at V-1 & n.3; PR at V-1 & n.3.

[193] CR/PR at Table II-3.

[194] See Hearing Tr. at 91 (Neuheardt), 142, 162-63 (Becker).

[195] Hearing Tr. at 208-9 (Becker).

witness for SSCA testified that customers pay for technical services separately from their purchases of PVA.[196]

For all of the above reasons, we find that the pricing data on the record of the final phase of this investigation are probative for purposes of our underselling analysis. We further find that this significant underselling enabled subject imports to gain market share in the merchant market at the expense of the domestic industry.

We also find evidence that domestic like product prices were suppressed in the first half of 2010, resulting in a cost-price squeeze.[197] The domestic industry's ratio of cost of goods sold to net sales in the merchant market fluctuated within a narrow band between 2007 and 2009, increasing from *** percent in 2007 to *** percent in 2008, but declining to *** percent in 2009; it was *** percent in the first half of 2009, *** percent in the second half of 2009, and *** percent in the first half of 2010.[198] The ratio was elevated in the first half of 2010 because the domestic industry was unable to increase significantly the unit value of its net sales relative to its unit cost of goods sold.[199] Subject import competition contributed to this trend by capturing *** percentage points of market share from the domestic industry over the 2007-2009 period and retaining *** percentage points of this captured market share in the first half of 2010, which reduced the domestic industry's unit value of net sales by compelling domestic producers to rely more heavily on lower-priced exports to increase their capacity utilization.[200]

Subject import competition also contributed to the domestic industry's cost-price squeeze in the first half of 2010 by limiting the domestic industry's ability to realize fully its announced price increases. Notwithstanding the strong recovery in PVA demand in the first half of 2010,[201] *** reported that they were unable to implement fully their announced price increases with all customers during the period.[202] We find that the pervasive and significant subject import underselling in the first half of 2010 contributed significantly to the domestic industry's inability to fully capitalize on recovering PVA demand by entirely realizing their announced price increases.[203] Accordingly, we find that subject import prices suppressed domestic price increases that otherwise would have occurred to a significant degree, but only in the first half of 2010.[204]

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[196] Hearing Tr. at 91 (Neuheardt).

[197] We note that respondents concede that their own "unit revenue conversion" analysis based on record information "would suggest the possibility of a cost-price squeeze" in the first half of 2010. Respondents' Responses to Commissioner Questions at 24-25.

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

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

[200] CR/PR at Table C-6. A witness for SSCA testified that SSCA exports to increase its rate of capacity utilization and reduce its unit fixed costs, but prefers to make sales in the U.S. market where PVA prices are higher. Hearing Tr. at 24 (Neuheardt). The ratio of the domestic industry's exports to its total commercial sales quantity in the merchant market increased during the period examined from *** percent in 2007 to *** percent in 2008 and *** percent in 2009. CR/PR at Table C-6. The ratio reached *** in the first half of 2010, at *** percent, up from *** percent in the first half of 2009. Id.

[201] Apparent U.S. consumption in the merchant market was *** percent higher in the first half of 2010 than in the first half of 2009. CR/PR at Table C-6.

[202] CR/PR at Table V-3. Specifically, ***. Id. *** Id. at Table V-3.

[203] CR/PR at Table V-10. In the first half of 2010, subject imports undersold the domestic like product in *** of *** quarterly comparisons at margins ranging from *** to *** percent. Id. As further evidence that low-priced subject import competition contributed to the domestic industry's inability to fully realize its announced price increases, we note that ***. Id. at Table V-11.

[204] Commissioner Pinkert joins in the Commission's finding that subject import prices suppressed domestic prices in the first half of 2010. Nevertheless, in his view, the six months of price suppression in this case do not constitute (continued...)

E. Impact of the Subject Imports[205]

Section 771(7)(C)(iii) of the 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."[206] These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[207]

Between 2007 and 2009, most measures of the domestic industry's performance declined significantly. Domestic industry production declined *** percent, from *** pounds in 2007 to *** pounds in 2008 and *** pounds in 2009.[208] Lower production caused capacity utilization to decline from *** percent in 2007 to *** percent in 2008 and *** percent in 2009.[209] Consistent with the declines in production, the domestic industry's shipments declined significantly from 2007 to 2009. U.S. commercial shipments declined *** percent between 2007 and 2008, from *** pounds to *** pounds, and *** percent between 2008 and 2009, to *** pounds, a level *** percent lower than in 2007.[210]

Just as U.S. PVA producers' production and shipments declined from 2007 to 2009, so did many indicators of their financial performance. The domestic industry's net commercial sales quantity declined steadily, and the dollar value of its commercial sales declined irregularly, from 2007 to 2009.[211] The industry's merchant market operating income declined from $*** in 2007, equivalent to *** percent of net sales, to $*** in 2008, equivalent to *** percent of net sales, to *** of $*** in 2009, equivalent to *** percent of net sales.[212] The industry's return on investment declined from *** percent in 2007 to *** percent in 2008 and *** percent in 2009.[213] With respect to the overall market, including merchant market sales and internal consumption, the domestic industry's operating income increased from 2007 to

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[204] (...continued)
a sufficient basis to warrant a finding under the statute that "the effect of imports of such merchandise otherwise . . . prevents price increases, which otherwise would have occurred, to a significant degree." 19 U.S.C. § 1677(7)(C)(ii)(II) (emphasis added).

[205] In its final determination of sales at LTFV, Commerce found a weighted-average dumping margin of 3.08 percent for all exporters and producers of PVA from Taiwan. CR at I-8. Pursuant to 19 U.S.C. § 1677(35)(C)(ii), we consider the dumping margins most recently published by Commerce prior to the closing of the record in this investigation.

[206] 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851 and 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.")

[207] 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851, 885; Live Cattle from Canada and Mexico, Inv. Nos. 701-TA-386, 731-TA-812-813 (Prelim.), USITC Pub. 3155 at 25 n.148 (Feb. 1999).

[208] CR/PR at Table III-2b.

[209] CR/PR at Table III-2b. Domestic industry production capacity was flat, increasing *** from *** pounds in 2007 to *** pounds in 2008 and 2009. CR/PR at Table III-2b.

[210] CR/PR at Table C-6.

[211] The domestic industry's sales quantity dropped *** percent, from *** pounds in 2007 to *** pounds in 2009. The value of the industry's net commercial sales first increased *** percent from $*** in 2007 to $*** in 2008, and then declined *** percent to $*** in 2009. CR/PR at Table VI-8.

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

[213] CR/PR at Table VI-11.

2009 both absolutely and as a ratio to net sales, and its return on investment was slightly lower in 2009 than in 2007.[214]

The domestic industry's capital expenditures and research and development expenditures also declined significantly, albeit irregularly, between 2007 and 2009.[215] Witnesses for SSCA testified that SSCA has been unable to make the capital investments necessary to ensure the long term economic viability of its PVA operations.[216]

In contrast to the generally declining trends described above, most of the PVA industry's employment indicators – including number of workers, hours worked, and wages paid – were at levels in 2009 that were similar to or slightly higher than in 2007.[217] These steady or rising employment indicators, however, came at the expense of domestic industry productivity in pounds per hour, which declined *** from *** in 2007 to *** in 2008 and *** in 2009.[218]

Comparing the January-June interim periods, the domestic industry's output and sales indicators were higher in the first half of 2010 than in the first half of 2009, consistent with higher apparent U.S. consumption, but merchant market profitability still lagged. Apparent U.S. merchant market consumption was *** percent higher in the first half of 2010 than in the first half of 2009, and total U.S. market consumption was *** percent higher.[219] The domestic industry's production, merchant market shipments, and net sales quantities were higher by ***, ***, and *** percent, respectively, in the first half of 2010 than in the first half of 2009.[220] The industry's capacity utilization was *** percentage points higher in the first half of 2010 than in the first half of 2009.[221] The domestic industry's share of the U.S. merchant market was *** percentage points higher in the first half of 2010 than the first half of 2009, and its share

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[214] Operating income for the overall market increased from $*** in 2007, equivalent to *** percent of net sales, to $*** in 2008, equivalent to *** percent of net sales, before declining *** to $*** in 2009, equivalent to *** percent of net sales. The domestic industry's return on investment increased from *** percent in 2007 to *** percent in 2008 but declined to *** percent in 2009. CR/PR at Table VI-2.

The industry's operating profits were higher for the overall market than the merchant market, largely due to the inclusion of *** in the data for the overall market. *** than the *** domestic producers. CR/PR at Table VI-4. ***. CR at VI-16 n.6; PR at VI-3 n.6. While all domestic producers *** and thereby *** to a certain extent, ***. Id. The *** of the overall industry resulting from *** does not, in our view, negate the material injury caused by subject imports as seen in the merchant market data.

[215] The domestic industry's capital expenditures increased *** percent between 2007 and 2008, from $*** to $***, but then declined *** percent to $*** in 2009. The industry's expenditures on research and development increased from $*** in 2007 to $*** in 2007 before declining to $*** in 2009, a level *** percent lower than in 2007. CR/PR at Table VI-12.

[216] Hearing Tr. at 28-29 (Neuheardt), 45 (Lutz). SSCA contends that low-priced subject import competition has ***. Petitioner's Prehearing Brief at 37.

[217] The number of production related workers ("PRWs") increased from *** in 2007 to *** PRWs in 2008 before declining to *** PRWs in 2009. Hours worked increased *** percent between 2007 and 2009, from *** hours to *** hours. Wages paid increased *** between 2007 and 2009, from $*** to $***. CR/PR at Table III-7b.

[218] CR/PR at Table III-7b.

[219] CR/PR at Tables C-3, C-6.

[220] The domestic industry's production was higher in the first half of 2010, at *** pounds, than in the first half of 2009, at *** pounds. CR/PR at Tables III-2b, C-3. The industry's U.S. merchant market shipments were *** pounds in the first half of 2010 and *** pounds in the first half of 2009. CR/PR at Tables III-3b, C-3. Net U.S. sales were *** pounds in the first half of 2010 and *** pounds in the first half of 2009. CR/PR at Table VI-8. Total U.S. shipment quantities and net sales values were also higher in the first half of 2010 than in the first half of 2009. CR/PR at Table III-3b, Table VI-8.

[221] Capacity utilization was *** percent in the first half of 2010 and *** percent in the first half of 2009. CR/PR at Table III-2b.

of the total market was *** percentage points higher.[222] Domestic employment indicators were at similar levels in both interim periods, with the number of workers and hours worked marginally higher in the first half of 2010 than in the first half of 2009 and wages paid slightly lower.[223]

Despite experiencing higher performance levels in certain indicators in the first half of 2010 than in the first half of 2009, the domestic industry nevertheless posted an operating loss in the first half of 2010 in its merchant market operations. As discussed above, the competition between subject imports and the domestic like product takes place in the merchant market. The domestic industry *** of $*** in its merchant market operations, equivalent to *** percent of net sales, versus *** of $*** in the first half of 2009, equivalent to *** percent of net sales.[224] With respect to the entire market including captive shipments, the domestic industry's operating income was $*** in the first half of 2010, equivalent to *** percent of net sales, as compared to $*** in the first half of 2009, equivalent to *** percent of net sales.[225]

Based on the foregoing trends, we find a causal nexus between the domestic industry's deteriorating condition and subject imports. The significant increase in subject import market share over the period examined, particularly in the merchant market, came almost entirely at the expense of the domestic industry. In the merchant market, subject imports captured *** percentage points of market share from the domestic industry between 2007 and 2009 and retained *** percentage points of this captured market share in the first half of 2010.[226] The industry's share of apparent consumption in the U.S. merchant market declined from *** percent in 2007 to *** percent in 2008 and *** percent in 2009, for a market share loss of *** percentage points over the 2007-2009 period.[227] The significantly higher level of subject import volume and shipments in the first half of 2010 relative to the first half of 2009 contributed to the domestic industry's inability to capitalize fully on higher PVA demand in the first half of 2010.[228] Pervasive and significant subject import underselling, which increased in frequency and intensity over the period, also contributed to the domestic industry's declining performance during the

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[222] The domestic industry's share of the U.S. merchant market was *** percent in the first half of 2010 and *** percent in the first half of 2009. CR/PR at Table C-6. The industry's share of the total U.S. PVA market was *** percent in the first half of 2010 versus *** percent in the first half of 2009. CR/PR at Table C-3.

[223] Domestic industry employment was *** PRWs in the first half of 2010 and *** PRWs in the first half of 2009. Hours worked were *** hours in the first half of 2010 and *** hours in the first half of 2009. Wages paid were $*** in the first half of 2010 and $*** in the first half of 2009. CR/PR at Table III-7b. Significantly higher production and relatively unchanged hours worked meant that domestic industry productivity was significantly higher (by *** percent) in the first half of 2010 than in the first half of 2009. Productivity was *** pounds per hour in the first half of 2010 versus *** pounds per hour in the first half of 2009. CR/PR at Table III-7b.

[224] CR/PR at Table VI-8. The domestic industry's capital expenditures were *** percent higher in the first half of 2010, at $***, than in the first half of 2009, at $***. The domestic industry's expenditures on research and development were *** percent lower in the first half of 2010, at $***, than in the first half of 2009, at $***. CR/PR at Table VI-12.

[225] CR/PR at Table VI-2.

[226] CR/PR at Table C-6. In the overall market, subject imports captured *** percentage points of market share from the domestic industry between 2007 and 2009 and retained *** percentage points of this captured market share in the first half of 2010. Id. at Table IV-5b.

[227] CR/PR at Table C-6. The industry's U.S. shipments and market share followed a similar downward trend when both merchant market sales and internal consumption are considered. With respect to the overall market, the domestic industry's U.S. shipments declined *** percent between 2007 and 2008, from *** pounds to *** pounds, and another *** percent between 2008 and 2009, to *** pounds, a level *** percent lower than in 2007. CR/PR at Tables III-3b, C-3. The industry's share of total apparent U.S. consumption of PVA declined from *** percent in 2007 to *** percent in 2008 and *** percent in 2009, for a market share loss of *** percentage points over the 2007-2009 period. CR/PR at Table III-3b.

[228] CR/PR at Tables IV-2b, IV-5b, and C-6.

period examined, and its inability to fully benefit from recovering demand in the first half of 2010.[229] Low-priced subject import competition contributed significantly to the domestic industry's cost-price squeeze in the first half of 2010, when domestic producers were unable to realize fully their announced price increases notwithstanding the strong recovery in PVA demand, both by forcing the domestic industry to rely heavily on lower-priced exports and by suppressing domestic like product prices to a significant degree.[230] [231] Thus, we conclude that subject imports had a significant adverse impact on the domestic industry.

Based on the record in the final phase of this investigation, we do not find that the domestic industry was insulated from subject import competition by either captive consumption or long-term contracts. A significant proportion of the domestic industry's total net sales were made in the U.S. merchant market during the period examined, with the ratio of merchant market shipments to total net sales ranging from *** percent to *** percent during the period.[232] Having found the captive production provision to be applicable, we focus our analysis of market share and the domestic industry's financial performance on the merchant market. Long-term contracts did not insulate domestic producers from subject import competition to a significant degree because such contracts ***.[233] Domestic producer merchant market sales of PVA used for the production of PVB did not insulate them from subject import competition to a significant degree because such sales represented a small percentage of the U.S. merchant market.[234] Finally, the domestic industry's significant volume of export shipments throughout the period did not attenuate subject import competition because domestic producers prefer to sell PVA into the U.S. merchant market, where prices are higher, and were forced to rely more heavily on lower-priced exports as they lost market share to subject imports.[235]

We have considered whether there are other factors that adversely impacted the domestic industry. We recognize that the recession contributed to the domestic industry's declining performance between 2007 and 2009, particularly in 2009. Due in large part to the recession, apparent U.S. consumption declined *** percent in both the merchant market and the overall market between 2007 and 2009.[236] At the same time that the domestic industry suffered from recessionary conditions, however, subject imports increased their share of the merchant market by *** percentage points at the domestic industry's expense and undersold the domestic like product with increasing frequency and severity.[237] After the recession ended, the domestic industry was unable to capitalize fully on the strong PVA demand recovery in the first half of 2010, or ***, while subject imports retained most of the market share captured from the domestic industry over the 2007-2009 period and continued to pervasively undersell the domestic like product. Thus, the recession cannot fully explain the domestic industry's deteriorating condition over the period examined, particularly in the first half of 2010.

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

[230] See CR/PR at Tables V-3, 10-11, VI-8, and C-6.

[231] For Commissioner Pinkert's views on the price suppression issue, see footnote 204.

[232] Compare CR/PR at Table VI-4 with id. at Table VI-8.

[233] See CR at V-7; PR at V-4; CR/PR at Table V-2.

[234] CR at III-15; PR at III-7.

[235] See CR/PR at Table C-6.

[236] CR/PR at Table IV-5b, C-6.

[237] It also is noteworthy, as discussed above, that subject import market share was generally higher, and subject imports generally undersold the domestic like product with greater frequency and at larger margins, in the period examined in the final phase of the investigation relative to the period examined in the preliminary phase of the investigation.

Another factor that impacted the domestic industry during the period examined was the significant presence of nonsubject imports in the U.S. market throughout the period.[238] Nonsubject import volume declined *** percent between 2007 and 2008, from *** pounds to *** pounds, but increased *** percent in 2009 to *** pounds, a level *** percent higher than in 2007.[239] U.S. shipments of nonsubject imports in the merchant market declined *** percent between 2007 and 2008, from *** pounds to *** pounds, but increased *** percent to *** pounds in 2009, a level *** percent lower than in 2007.[240] U.S. shipments of nonsubject imports in the merchant market were *** pounds in the first half of 2010, up *** percent from the first half of 2009, when they were *** pounds.[241] U.S. shipments of nonsubject imports as a share of apparent U.S. consumption in the merchant market declined from *** percent in 2007 to *** percent in 2008, but increased to *** percent in 2009, a level *** percentage points higher than in 2007.[242] U.S. shipments of nonsubject imports as a share of apparent U.S. consumption in the merchant market were *** percent in the first half of 2010, down *** from *** percent in the first half of 2009.[243]

We recognize that nonsubject import volume increased significantly both in absolute terms and relative to apparent U.S. consumption and that the increase in nonsubject import market share came at the expense of the domestic industry. Nevertheless, throughout the period examined, U.S. shipments of subject imports accounted for a significantly higher share of apparent U.S. consumption than U.S. shipments of nonsubject imports in both the merchant market and the overall market and also captured significant market share from the domestic industry during the period. Moreover, in the first half of 2010, subject imports retained *** more of the market share captured from the domestic industry in the merchant market over the 2007-2009 period (*** of *** percentage points) than nonsubject imports, which retained only *** percentage points of the *** percentage points captured over the 2007-2009 period.[244]

Subject imports also undersold the domestic like product with increasing frequency and severity during the period examined, unlike nonsubject imports, which were generally priced higher than both the

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[238] Based on the record evidence, Commissioner Pinkert finds that price competitive, nonsubject imports were a significant factor in the U.S. market during the period of investigation. He also finds, however, that, regardless of whether PVA is a commodity product, nonsubject imports would not have replaced the subject imports without benefit to the domestic industry had the subject imports exited the market during the period. Although there is significant global PVA capacity outside the subject countries, CR/PR at Table VII-3, U.S. imports from China, Japan, and Korea are disciplined by antidumping duty orders. Moreover, even if nonsubject imports had replaced the subject imports, nonsubject imports were generally sold during the period of investigation at prices that were higher than the prices of both domestic PVA and imports from Taiwan, so that there would have been a price benefit to the domestic industry. CR/PR at Appendix D (imports from China, Germany, Japan, and Spain were sold at higher prices than the domestic product and the subject imports in the majority of instances, while imports from Singapore were sold at higher prices than the subject imports in the majority of instances, but not at higher prices than the domestic product).

[239] CR/PR at Table IV-2b.

[240] CR/PR at Table C-6. U.S. shipments of nonsubject imports in the overall market were of a similar magnitude and showed a similar trend. See id. at Table IV-4b.

[241] CR/PR at Table C-6. U.S. shipments of nonsubject imports in the overall market were of a similar magnitude and showed a similar trend. See id. at Table IV-4b.

[242] CR/PR at Table C-6. U.S. shipments of nonsubject imports as a share of apparent U.S. consumption in the overall market declined from *** percent in 2007 to *** percent in 2008, but increased to *** percent in 2009, a level *** percentage points higher than in 2007. Id. at Table IV-5b.

[243] CR/PR at Table C-6. U.S. shipments of nonsubject imports as a share of apparent U.S. consumption in the overall market were *** percent in the first half of 2010, down *** from *** percent in the first half of 2009. Id. at Table IV-5b.

[244] CR/PR at Table C-6.

domestic like product and subject imports during the period. Price data reported for nonsubject countries indicate that nonsubject imports were priced higher than the domestic like product in 106 of 170 quarterly comparisons, or 62.4 percent of the time, lower than the domestic like product in 60 of 170 quarterly comparisons, or 35.3 percent of the time, and the same as the domestic like product in 4 of 170 comparisons, or 2.4 percent of the time.[245] These data also indicate that nonsubject imports were priced higher than subject imports in 145 of 170 quarterly comparisons, or 85.3 percent of the time, lower than subject imports in 23 of 170 quarterly comparisons, or 1.2 percent of the time, and the same as subject imports in 2 of 170 comparisons, or 1.2 percent of the time.[246] Moreover, nonsubject imports from China, Japan, and Korea were subject to antidumping duty discipline during the period examined.[247] For all these reasons, we conclude that nonsubject imports cannot explain the domestic industry's declining performance over the period examined.

Finally, we recognize that the force majeure events of 2007 and 2008 contributed somewhat to the increase in subject import volume and market share over that portion of the period examined. As addressed in section IV.C above, however, record evidence shows that most of the disruption to domestic PVA supply occurred in 2007, that the disruption's actual effects were modest, and that CCPC was little more reliable than domestic producers during the period. Thus, the force majeure events in 2007 and 2008 cannot explain the entire increase in subject import volume and market share at that time. Nor do the force majeure events explain the significant increase in subject import market share between 2007 and 2009, or the fact that subject import market share remained at a high level in the first half of 2010. There is also no evidence of any supply disruption in the first half of 2010 that could explain the relatively high levels of subject import volume and market share in that period.[248]

Moreover, respondents' argument that a supply shortage due to the force majeure events pulled subject imports into the U.S. market in 2007 and 2008 is inconsistent with evidence that subject import underselling increased in frequency and severity between 2007 and 2008.[249] Had subject imports been drawn into the U.S. market by shortage conditions, subject import prices should have increased relative to

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[245] CR at D-3; PR at D-3. Four importers of scope PVA from five nonsubject countries reported usable price data for sales of the requested products, accounting for *** percent of the total reported U.S. commercial shipment quantity of nonsubject imports during the January 2007-June 2010 period. CR/PR at V-22 & n.36.

We are unpersuaded by respondents' argument that China was the price leader in the U.S. market, which is based on their assertion that the average unit value of nonsubject imports from SVW was lower than the average unit value of subject imports. Respondents' Prehearing Brief at 31-32. Respondents predicate this assertion on a comparison of the average unit value of imports from Chinese producer SVW reported by importer *** and pricing data for sales to arms-length customers reported by importer ***, which are at different levels of trade. Id. The Commission's pricing product data, which are based on apples-to-apples comparisons, indicate that nonsubject imports from China were priced higher than the domestic like product in 34 of 50 quarterly comparisons and higher than subject imports in 43 of 50 quarterly comparisons. CR at D-3; PR at D-3.

We also question the relevance of respondents' assertion that the domestic industry's "failure" to request any administrative reviews of SVW, which in their view would have likely resulted in a significant dumping rate, represents "an apparent acquiescence by the domestic industry of SVW's market role." Respondents' Responses to Commissioner Questions at 24. We do not find that any particular inference is warranted based on the domestic industry's decision not to request an administrative review of SVW. Moreover, the record does not support respondents' argument that China was the price leader in the U.S. market. CR at D-3; PR at D-3.

[246] CR at D-3; PR at D-3.

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

[248] See Section IV.B.3, supra. There is little evidence that purchasers reacted to the force majeure events by further diversifying their sources of PVA, as respondents argue. See Section IV.C, supra.

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

prices for the domestic like product, but subject import underselling margins generally increased.[250] Thus, the force majeure events in 2007 and 2008 do not explain the increase in subject import market share over the period examined.

In sum, the record in the final phase of this investigation indicates that there was a causal nexus between subject imports and the deteriorating condition of the domestic industry over the period examined sufficient to establish that the domestic industry is materially injured by reason of subject imports.

CONCLUSION

For the foregoing reasons, and based on the record in the final phase of this investigation, we determine that an industry in the United States is materially injured by reason of subject imports of PVA from Taiwan sold in the United States at LTFV.

[250] See CR/PR at Tables V-4-8. Subject import prices declined during the period in which Celanese's declaration of force majeure was in effect (from the second quarter of 2007 through the first quarter of 2008) with respect to products 2 and 5. Id. at Tables V-5, 8. As further evidence that subject import prices did not increase significantly as a result of Celanese's declaration of force majeure, we note that ***. Respondents' Posthearing Brief, Exhibit 9 at 14.

DISSENTING VIEWS OF CHAIRMAN DEANNA TANNER OKUN AND COMMISSIONER DANIEL R. PEARSON

I. INTRODUCTION

Based on the record in this investigation, we determine that an industry in the United States is not materially injured or threatened with material injury by reason of imports of polyvinyl alcohol ("PVA") from Taiwan that are sold in the United States at less than fair value ("LTFV"). We join the Views of the Commission concerning background, domestic like product, domestic industry, the appropriate legal standards for material injury and threat of material injury analysis, and the conditions of competition. We write separately, however, with respect to our analysis of material injury and threat of material injury by reason of subject imports from Taiwan.

II. NO MATERIAL INJURY BY REASON OF SUBJECT IMPORTS FROM TAIWAN

A. Volume of Subject Imports

Section 771(7)(C)(i) of the 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."[1]

While U.S. shipments of subject imports from Taiwan increased by *** in 2007 to *** in 2008, subject imports decreased by *** in 2009, an overall decrease of *** between 2007 and 2009.[2] As demand improved in interim (January-June) 2010, U.S. shipments of subject imports were *** than in interim 2009, at ***.[3]

U.S. shipments of subject imports as a share of apparent U.S. consumption in the merchant market increased from *** in 2007 to *** in 2008, and then declined to *** in 2009.[4] As demand improved in interim 2010, subject imports increased at a lower rate and thus their share of apparent U.S. consumption in the merchant market was lower in interim 2010, at ***, compared to interim 2009, at ***.[5] [6] Taiwan's share of total apparent U.S. consumption followed a similar trend, increasing from ***

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[1] 19 U.S.C. § 1677(7)(C)(i).

[2] CR/PR at Tables C-3 and C-6. The volume of subject imports from Taiwan followed a similar trend, increasing from *** in 2008, but then declining to *** in 2009. Subject imports were *** in interim 2010. CR/PR at Table IV-2b.

[3] CR/PR at Tables C-3 and C-6.

[4] CR/PR at Table C-6.

[5] CR/PR at Table C-6.

[6] CR/PR at Table C-6. We have considered SSCA's argument that the market share data for 2009 and interim 2010 is distorted due to changes in reporting caused by SSCA's acquisition of Celanese's PVA operations in July 2009, and specifically the reclassification of PVA that had formerly been captively consumed by Celanese as merchant market sales by SSCA to Celanese. Petitioner's Posthearing Brief at 4; Petitioner's Responses to Commissioner Questions at 52. Excluding these sales, SSCA calculates that the subject import share of apparent U.S. consumption in the merchant market was *** in interim 2010. Petitioner's Responses to Commissioner Questions at 52, Exhibit 7. While these shipments are now arm's length transactions and no adjustment to the Commission's data is warranted, we note that SSCA's adjusted market share data do not significantly alter the trend in subject import market share over the period examined, including the interim period.

in 2007 to *** in 2008, and then decreasing to *** in 2009; their share of total apparent U.S. consumption was lower in interim 2010, at ***, compared to interim 2009, at ***.[7]

As a ratio to U.S. production, subject imports from Taiwan increased from *** in 2007 to *** in 2008, decreased to *** in 2009, and was *** in interim 2010 compared to *** in interim 2009.[8]

While the volume of subject imports throughout the period examined, both in absolute terms and relative to domestic production and consumption, arguably is significant, the modest increase overall in market share is not. Increases in subject imports in volume and market share from 2007 to 2008 were a direct result of the significant supply disruptions by U.S. producers.[9] Subject imports were pulled into the U.S. merchant market in response to the force majeure events declared by Celanese between May 14, 2007 and January 28, 2008 and DuPont between September 24, 2008 and November 6, 2008, as discussed in section IV.B.3 of the majority views.[10] Thus, while the domestic industry's loss in market share from 2007 to 2008 would appear to be at the expense of an increase in subject imports, the supply shortfalls that led to the increase in subject imports does not permit us to attribute those domestic industry declines in market share to injury from subject imports. We also recognize that the evidence indicates that the actual supply shortfall from the force majeure events may have been modest, however, the effects of the perceived inability to timely obtain substantial volumes of forecasted and necessary PVA supplies highlighted the need for customers to seek and maintain alternative supply sources.[11]

There is further evidence that purchasers throughout the period examined have been unable to procure PVA in the desired quantities from each of the suppliers due in part to the production process whereby PVA is produced in a technically determined sequence.[12] This effect on the availability of supply of PVA, particularly of additional volumes, reinforces the need for alternative sources of supply, including a steady presence of subject imports.

The volume and market share of subject imports, with the exception of the 2007 to 2008 period, have followed demand trends and have not been at the expense of domestic industry. As demand plummeted from 2008 to 2009, both the domestic industry and subject import's shares of the merchant and total U.S. PVA market declined,[13] but non-subject imports gained market share.[14] As demand has

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[7] CR/PR at Table C-3. When the captive consumption provision applies, the Commission generally also analyzes data "with respect to the whole market as well." See, e.g., Polyvinyl Alcohol from Taiwan, Inv. No. 731-TA-1088 (Preliminary), USITC Pub. 3732 at 17 (Oct. 2004).

[8] CR/PR at Table IV-6b.

[9] As discussed in section IV.B. 3 of the majority views, the U.S. PVA market is supplied by domestic producers, subject imports from Taiwan, and nonsubject imports. There are three domestic producers of PVA – SSCA, DuPont, and Solutia. SSCA, which acquired Celanese's PVA operations on July 1, 2009, accounted for *** of domestic PVA production in 2009. DuPont, which produces only certain fully hydrolized PVA domestically and rounds out its product line with partially hydrolized and other PVA imported from Taiwan, accounted for *** of domestic PVA production in 2009; DuPont captively consumed between *** of its PVA production in each full year of the period examined. DuPont produced *** more PVA in the United States than it imported from Taiwan; its ratio of subject imports to production ranged from *** during the period examined. Solutia accounted for *** of domestic PVA production in 2009; Solutia captively consumed all of its PVA production during the period examined. While SSCA *** and Solutia ***, DuPont ***. CR/PR at Tables III-1 and III-5; CR at III-2 – III-3; PR at III-1 - III-2.

[10] See e.g., Respondents' Posthearing Brief at 3.

[11] See Petitioner's Posthearing Brief at 8 and n.8; Hearing Tr. at 34 (Sikura) (estimating a supply shortfall of 3 percent in 2007); CR at II-21 and 23. Compare Respondents' Posthearing Brief at 18 ("CCPC has confirmed with its U.S. customer ***. These ***.").

[12] Petitioner's Prehearing Brief at 9-11.

[13] The domestic industry's share of apparent U.S. merchant market consumption declined from *** in 2007 to *** in 2008 and *** in 2009 but was *** in interim 2010 compared to *** in interim 2009. CR/PR at Table C-6.

(continued...)

improved in interim 2010, the domestic industry has regained market share at the expense of both subject and non-subject imports.

Accordingly, while we find that the volume of subject imports both absolutely and relative to production and consumption in the United States arguably is significant, it has been a steady presence in the U.S. market and has not been responsible for significant price effects or had a significant impact on the domestic industry.

B. Price Effects of the Subject Imports

> Section 771(7)(C)(ii) of the Act provides that, in evaluating the price effects of subject imports, the Commission shall consider whether – (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.[15]

The record indicates that price is an important consideration in purchasing decisions, although not necessarily the most important consideration. Moreover, there is a moderate level of substitutability in demand between subject imports and the domestic like product in similar grades of PVA.[16]

The Commission requested U.S. producers and importers of PVA from Taiwan to provide quarterly sales data for the quantity and net f.o.b. value of five PVA products, all within the scope of the investigation.[17] One U.S. producer, ***, and two importers of scope PVA from Taiwan, ***, provided usable price data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[18] Since only *** reported pricing data for U.S.-produced PVA, price comparisons are based on only *** of the domestic industry's U.S. commercial shipment quantity of U.S.-produced scope PVA during the January 2007-June 2010 period. On the other hand, pricing data for

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[13] (...continued)
The domestic industry's share of total apparent U.S. consumption decreased from *** in 2007 to *** in 2008 and *** in 2009, but was *** in interim 2010 compared to *** in interim 2009. CR/PR at Table C-3.

[14] Non-subject imports' share of apparent U.S. merchant market consumption decreased from *** in 2007 to *** in 2008 but then increased to *** in 2009, and their market share in interim 2010 was *** compared to *** in interim 2009. CR/PR at Table C-6. Non-subject imports' share of total apparent U.S. consumption declined from *** in 2007 to *** in 2008 but then increased to *** in 2009, and their market share in interim 2010 was *** compared to *** in interim 2009. CR/PR at Table C-3.

[15] 19 U.S.C. § 1677(7)(C)(ii).

[16] See CR at II-45; PR at II-26; CR/PR at Tables II-7, 8a, 8b, and 9-11.

[17] CR at V-21; PR at V-7. The five products for which pricing data were requested are as follows: Product 1, scope PVA for use in adhesive applications with a range of hydrolysis between 80-89 percent, a viscosity between 3-6 (centipois), standard granular particle size, and non-tackified; Product 2, scope PVA for use in adhesive applications with a range of hydrolysis between 80-89 percent, a viscosity between 20-39 (centipois), standard granular particle size, and non-tackified; Product 3, scope PVA for use in adhesive applications with a range of hydrolysis between 80-89 percent, a viscosity between 40-70 (centipois), standard granular particle size, and non-tackified; Product 4, scope PVA for use in paper applications with a range of hydrolysis between 98-99 percent, a viscosity between 3-12 (centipois), standard granular particle size, and non-tackified; and Product 5, scope PVA for use in textile applications with a range of hydrolysis between 87-97 percent, a viscosity between 12-39 (centipois), standard granular particle size, and non-tackified. CR at V-22; PR at V-8.

[18] CR at V-22; PR at V-8.

subject imports was reported by *** and accounted for almost *** of the total reported U.S. commercial shipment quantity of scope PVA imported from Taiwan during the period examined.[19]

We recognize that this pricing data show that subject imports undersold the domestic like product in the majority of possible price comparisons during the period examined. Between January 2007 and June 2010, subject imports undersold the domestic like product in 58 of 70 quarterly price comparisons, or 82.9 percent of the time, at margins ranging from *** percent.[20] Nonetheless, this pattern of underselling did not result in substantial increases in the volume of subject imports nor, as discussed below, do we find that it had an adverse impact on the domestic industry. In fact, when the underselling was more frequent with higher margins in 2008 and 2009, the volume and market share of subject imports declined, and in interim 2010, increases in subject imports did not keep pace with the improvements in apparent U.S. consumption.[21]

In addition to the low coverage of U.S. product in the pricing series, there is mixed evidence in the record regarding a number of factors that affect the comparability of the pricing data,[22] which have a bearing on the weight that we accord this data in our analysis. First, the evidence demonstrates SSCA and DuPont provide technical and other services to their PVA customers, whereas importer *** does not.[23] The comparability question involves the extent to whether the cost of technical and other services offered by some suppliers is included in the PVA pricing data but not others. *** stated in its importer questionnaire response that:

***"[24]

On the other hand, a witness for SSCA at the hearing testified that different customers require different levels of service.[25] The reported pricing data, however, demonstrate that for *** of the 68 possible

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[19] CR at V-22-23; PR at V-8-9.

[20] CR/PR at Table V-10. Subject imports oversold the domestic like product in 11 of 70 quarterly comparisons, or 15.7 percent of the time, at margins ranging from *** percent. Id. Subject imports were priced the same as the domestic like product in one quarterly comparison. Id.

[21] Compare CR/PR at Figures V-2a - V-2e and Tables V-4 - V-8 to Tables C-3 and C-6.

[22] See Respondents' Prehearing Brief at 28-30; Respondents' Posthearing Brief at 5 n.9; Petitioner's Responses to Commissioner Questions at 6-7.

[23] According to DuPont, SSCA and DuPont are full service suppliers, whereas Perry Chemical maintains only an office in New York that provides none of the R&D, technical support, or other value-added services such as special packaging that are available from SSCA and DuPont. Perry Chemical provides no services and thus should be expected to have lower prices than SSCA and DuPont. CR at V-24, n.39; PR at V-9, n. 39; Respondents' Posthearing Brief at 5, n.9 and 13; Respondents' Prehearing Brief at 30-31.

[24] CR at V-24; PR at V-9. A witness for DuPont at the hearing stated that:

> you look at the supply dynamics, and you make decisions on that factor and other factors, and of course, you make logical ones in terms of the potential need for service because there are some customers that require absolutely no service, and then there are some customers that are at the other extreme where they want you to help develop next generational products. It is a combination of all those factors right now that determines how you do that, so I would say I personally do not price the service incremental to the rest of the package, but at the same time, we are, as a company, selective, to whom we offer that service based on our perspective of their potential and their actual potential.

Hearing Tr. at 208-09 (Becker).

[25] A witness for SSCA at the hearing stated that:

> different customers require different levels of service. And in some cases, those services are provided, and in other cases, they're unwilling to pay for them, and they're not provided. So I completely agree, there is

(continued...)

quarterly price comparisons, *** subject imported PVA undersold *** subject imported PVA, with subject imports priced the same in *** of the 68 possible price comparisons.[26] These empirical pricing comparisons appear to support DuPont's view that many customers are willing to pay more for service. Further analysis of the pricing data shows mixed underselling in comparisons between *** U.S.-produced PVA and *** subject imported PVA (underselling by *** imported product in *** of 70 possible quarterly price comparisons) and consistent underselling in comparisons between *** PVA and *** subject imported PVA (underselling by *** imported product in *** of 68 possible quarterly price comparisons.[27] Moreover, despite the price differentials for what is essentially identical imported material, the relative sales volumes of DuPont and Perry Chemical fluctuated but with no clear trend.

Second, there also is evidence that negotiations with specific customers, in particular those involving long-term contracts as well as those with substantial purchasing power, may play a role in the pricing data and provide some insulation for domestic producers from subject import price competition.[28] A significant share of U.S.-produced PVA is sold pursuant to long-term contracts, including *** of U.S. shipments in 2009.[29] Many of these contracts, on the other hand, permit *** PVA prices during the contract period, or ***.[30] The evidence is almost evenly split as to whether competing prices are mentioned during contract negotiations.[31]

Finally, the pricing data may also be affected by the fact that prices for the same grade of PVA can vary based on consuming industry.[32]

Thus, while the direct price comparison evidence shows price underselling by subject imports during the period examined,[33] we recognize the limitations in this price comparison data and afford less weight to it in our analysis. In particular, we find that the reported price underselling by subject imports did not lead to significant price depression or suppression or to substantial increases in subject imports or to a significant gain in market share by subject imports at the expense of the domestic industry, and we do not find that subject imports had a significant adverse impact on the domestic industry's condition.

In considering movements in prices during the period examined, the evidence shows that prices for U.S. produced and subject import PVA were higher at the end of the period of investigation than at the beginning. Specifically, prices generally increased from 2007 to 2008 and, although declined during the

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[25] (...continued)
no difference between Chang Chun material sold through DuPont or sold through Perry Chemical, as far as we can see.

Hearing Tr. at 91 (Neuheardt).

[26] CR/PR at Tables E-1- E-5.

[27] CR/PR at E-3 and E-9, and at Tables E-1 - E-5.

[28] CR/PR at V-1, n.4 and V-2, n.7.

[29] CR at V-7; PR at V-4.

[30] CR at V-7; PR at V-4. ***. Id. ***. See CR/PR at Table V-2. According to SSCA, ***. Petitioner's Posthearing Brief, Responses to Commissioner Questions at 53.

[31] Ten of 21 responding purchasers reported mentioning competing prices during their contract negotiations, while 11 reported not mentioning competing prices. CR at V-8; PR at V-5.

[32] CR/PR at V-1; Hearing Tr. at 114-17 and 157-59.

[33] We also considered that evidence regarding confirmed lost sales and revenue allegations in our analysis. CR at V-42; PR at V-14. Of the seven SSCA allegations to which purchasers responded, purchasers agreed with *** lost sales allegations totaling *** and valued at $*** and *** lost revenue allegations totaling $*** and involving *** of PVA. CR/PR at Tables V-11-12.

economic downturn in 2009, were still higher in interim 2010 than in 2007.[34] Given these trends in the domestic industry's prices, we do not find that subject imports from Taiwan depressed prices of the domestic like product in the U.S. market to a significant degree.

Regarding possible suppression of prices, prices are influenced in large part by demand and fluctuations in raw material costs.[35] Notwithstanding the decline in apparent U.S. consumption from 2007 to 2009, fluctuating costs, and consistent underselling by subject imports, the domestic industry's cost of goods sold (COGS) to net sales ratio in the merchant market fluctuated within a narrow band between 2007 and 2009, increasing from *** in 2007 to *** in 2008, but declining to *** in 2009; it was *** in interim 2009 and *** in interim 2010.[36] We recognize that U.S. producers reported that they were unable to fully implement announced price increases with all customers in interim 2010.[37] While the COGS to sales ratio in interim 2010 was higher than in the full years, it was lower than interim 2009, and was due in large part to the ***, as discussed below. Accordingly, we do not find that this demonstrates a cost-price squeeze caused by subject imports. Thus, we do not find that subject imports prevented price increases that otherwise would have occurred to any significant degree.

For all of these reasons, despite underselling of the domestic like product by subject imports during the period examined, we do not find that subject imports have depressed or suppressed domestic prices to a significant degree, and do not find that subject imports have adversely affected domestic prices during the period examined.

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[34] CR/PR at Table V-9.

[35] CR at V-1 -V-4; PR at V-1 - V-3. As discussed in section IV.B. 3 of the majority views, raw material costs represented the largest component of the domestic industry's costs and as a share of net sales ranged from *** for total U.S. PVA and *** for merchant market shipments of PVA over the period examined. CR/PR at Tables VI-2 and VI-8. The principal raw material inputs used to produce PVA are ethylene, acetic acid, and methanol, or VAM and methanol. Natural gas, or its derivative ethane, is the primary feedstock used to manufacture VAM, the principal raw material used to produce PVA. Thus, natural gas prices reportedly have been a substantial factor in U.S. PVA production costs. During the period examined, quarterly natural gas prices fluctuated, beginning in January-March 2007, at $8.01 per thousand cubic feet, and ending in July-September 2010, at $5.06 per thousand cubic feet. CR at V-2 and V-3; PR at V-1 and V-2.

[36] We recognize that when subject imports increased in volume and market share from 2007 to 2008, the domestic industry's financial performance as reflected in its operating income margin for the merchant market declined and appeared to experience a cost-price squeeze; specifically, while unit values for commercial sales increased from ***, these increases did not keep pace with increases in costs (e.g., unit COGS increased from ***) for an increase in COGS/sales from *** in 2008. CR/PR at Table VI-8. However, from 2008 to 2009, when the volume and market share of subject imports declined, unit values for commercial sales also declined to ***. CR/PR at Table VI-8. Thus, the domestic industry did not experience a cost-price squeeze from 2008 to 2009 when subject imports declined, yet the performance of the domestic merchant market industry declined to *** operating income margin in 2009; this decrease appears to be due in part to an increase in SG&A (e.g., unit SG&A increased from ***). CR/PR at Table VI-8. Similarly, between interim periods, the domestic merchant market industry did not experience a cost-price squeeze. CR/PR at Table VI-8.

[37] CR/PR at Table V-3. Specifically, ***. Id. ***. Id. at Table V-3.

C. Impact of the Subject Imports[38]

Section 771(7)(C)(iii) of the 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."[39] These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[40]

We do not find that the subject imports have had an adverse impact on the domestic industry either in the U.S. merchant market or the total U.S. PVA market during the period examined. We recognize that there have been declines in many of the domestic industry's performance indicators, particularly in the merchant market. However, with the exception of the 2007 to 2008 period when increases in subject imports were driven by the supply shortfalls anticipated by the domestic producers' declarations of force majeure, we find no significant correlation between subject imports and any declines in the domestic industry's profitability. The declines in the domestic industry's performance factors from 2008 to 2009 occurred at a time when the volume and market share of subject imports from Taiwan was declining and as apparent U.S. consumption plummeted. In interim 2010 (as compared to interim 2009), when apparent U.S. consumption improved substantially, subject imports' market share declined (although the volume of subject imports increased), and domestic producers gained market share, substantially improved their capacity utilization from period lows in interim 2009, experienced declining inventories as a share of shipments, and experienced improved operating performance for both merchant market sales and total PVA market sales. The domestic industry's merchant market *** in 2009 and interim periods cannot be attributed to subject imports but rather reflect the effects of the economic downturn and the ***.

The domestic industry's production, capacity utilization, and its U.S. shipments for the merchant market declined each year from 2007 to 2009.[41] Consistent with improvements in apparent U.S. consumption in interim 2010, the domestic industry's production and U.S. shipments were higher in interim 2010 compared to interim 2009.[42] In contrast, most employment indicators for the PVA industry

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[38] In its final determination of sales at LTFV, Commerce found a weighted-average dumping margin of 3.08 percent for all exporters and producers of PVA from Taiwan. CR at I-8; PR at I-6. Pursuant to 19 U.S.C. § 1677(35)(C)(ii), we consider the dumping margins most recently published by Commerce prior to the closing of the record in this investigation.

[39] 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851 and 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.")

[40] 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851, 885; Live Cattle from Canada and Mexico, Inv. Nos. 701-TA-386, 731-TA-812-813 (Prelim.), USITC Pub. 3155 at 25 n.148 (Feb. 1999).

[41] Domestic industry production declined from *** in 2007 to *** in 2008 and to *** in 2009. CR/PR at Table III-2b. Production capacity utilization declined from *** in 2007 to *** in 2008 and to *** in 2009. CR/PR at Table III-2b. Domestic industry production capacity was flat, increasing *** from *** in 2007 to *** in 2008 and 2009. CR/PR at Table III-2b. U.S. merchant market shipments declined from *** in 2007 to *** in 2008, and to *** in 2009. CR/PR at Table C-6. Domestic industry's inventories as a share of its merchant market shipments were *** in 2009. CR/PR at Table C-6.

[42] Domestic industry production was *** in interim 2010 compared to *** in interim 2009. CR/PR at Tables III-2b and C-3. Capacity utilization was *** in interim 2010, compared to *** in interim 2009. CR/PR at Table III-2b. Domestic industry U.S. merchant market shipments were *** in interim 2010 compared to *** in interim 2009.

(continued...)

– including number of workers, hours worked, and wages paid – were at a similar level or slightly higher in 2009 as compared to 2007,[43] and between interim periods.[44]

The domestic industry's share of apparent U.S. consumption in the U.S. merchant market declined from *** in 2007 to *** in 2008 and *** in 2009.[45] The domestic industry's share of the U.S. merchant market was higher, at ***, in interim 2010 as compared to interim 2009, at ***.[46] As discussed above, the domestic industry's loss of PVA market share from 2007 to 2008 occurred in large part when its customers were faced with the force majeure declarations and forced to seek alternative sources for PVA supplies, including subject imports.[47] However, from 2008 to 2009, as apparent U.S. consumption plummeted and the domestic industry's merchant market share continued to decline to ***, subject imports' market share also declined to *** whereas nonsubject imports increased to ***.[48] When demand improved in 2010, the domestic industry gained market share in the merchant market at the expense of both subject and nonsubject imports.[49]

As apparent U.S. consumption declined from 2007 to 2009, many of the indicators of the domestic industry's financial performance in the merchant market declined. The domestic industry's net commercial sales quantity declined steadily, and the dollar value of its commercial sales increased from

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[42] (...continued)
CR/PR at Table C-6. Domestic industry's inventories as a share of its merchant market shipments were *** in interim 2009. CR/PR at Table C-6.

[43] The number of production related workers ("PRWs") increased from *** in 2007 to *** PRWs in 2008 before declining back to *** PRWs in 2009. Hours worked increased *** between 2007 and 2009, from *** hours to *** hours. Wages paid increased *** between 2007 and 2009, from $*** to $***. CR/PR at Table III-7b. Domestic industry productivity in pounds per hour, however, declined *** from *** in 2007 to *** in 2008 and *** in 2009. CR/PR at Table III-7b.

[44] Domestic industry employment was *** PRWs in interim 2010, as compared to *** PRWs in interim 2009. Hours worked were *** hours in interim 2010, as compared to *** hours in interim 2009. Wages paid were $*** in interim 2010, and $*** in interim 2009. CR/PR at Table III-7b. Domestic industry productivity was higher, at *** pounds per hour in interim 2010 compared to *** pounds per hour in interim 2009. CR/PR at Table III-7b.

[45] CR/PR at Table C-6. The domestic industry's U.S. shipments and market share in the total U.S. PVA market followed a similar downward trend. With respect to the total PVA market, the domestic industry's U.S. shipments declined from *** in 2007 to *** in 2008, and to *** in 2009. CR/PR at Tables III-3b and C-3. Domestic industry total U.S. PVA shipments were *** in interim 2010 compared to *** in interim 2009. CR/PR at Tables III-3b and C-3. The domestic industry's share of total apparent U.S. consumption of PVA declined from *** in 2007 to *** in 2008 and *** in 2009. CR/PR at Tables III-3b and C-3.

[46] CR/PR at Table C-6. The domestic industry's share of the total U.S. PVA market was *** in interim 2010 compared to *** in interim 2009. CR/PR at Table C-3.

[47] Specifically, the domestic industry's share of the merchant PVA market declined from *** in 2007 to ***in 2008, whereas from 2007 to 2008 subject imports' market share increased from *** to *** and nonsubject imports' market share declined from ***. CR/PR at Table C-6.

[48] U.S. shipments of nonsubject imports as a share of apparent U.S. consumption in the merchant market declined from *** in 2007 to *** in 2008, but increased to *** in 2009. CR/PR at Table C-6. U.S. shipments of nonsubject imports as a share of apparent U.S. consumption in the merchant market were *** in interim 2010 compared to *** in interim 2009. Id. U.S. shipments of nonsubject imports as a share of apparent U.S. consumption in the total U.S. PVA market declined from *** in 2007 to *** in 2008, but increased to *** in 2009. CR/PR at Table C-6. U.S. shipments of nonsubject imports as a share of apparent U.S. consumption in the total U.S. PVA market were *** in interim 2010, compared to *** in interim 2009. CR/PR at Table C-3.

[49] Specifically, the domestic industry's share of the merchant market was higher at *** in interim 2010, compared to *** in interim 2009, whereas subject imports were higher in volume but lower in market share (***) in interim 2009 and nonsubject imports also were higher in volume but not in market share (*** in interim 2009). CR/PR at Table C-6.

2007 to 2008 and then declined from 2008 to 2009.[50] The domestic industry's merchant market operating income declined from $*** in 2007, equivalent to *** of net sales, to $*** in 2008, equivalent to *** of net sales, to *** of $*** in 2009, equivalent to *** of net sales.[51] The domestic industry's return on investment declined from *** in 2007 to *** in 2008 and *** in 2009.[52] With respect to the total U.S. PVA market, the domestic industry's operating income increased from 2007 to 2009 in dollars and as a ratio to net sales, and its return on investment was slightly lower in 2009 than in 2007.[53] The domestic industry's capital expenditures and research and development expenditures also declined irregularly between 2007 and 2009.[54]

When demand improved in 2010, the domestic industry experienced higher performance levels in most financial indicators. Net U.S. sales were *** in interim 2010, as compared to ***, in interim 2009.[55] In interim 2010, the domestic industry *** of $*** in its merchant market operations, equivalent to *** of net sales, as compared to *** of $*** in interim 2009, equivalent to *** of net sales.[56] [57]

We acknowledge that the domestic industry's merchant market operating income margin declined from 2007 to 2009, but experienced some improvement as demand improved between interim periods. While subject imports from Taiwan may have contributed to these losses from 2007 to 2008, we do not find that subject imports, as opposed to other factors, contributed materially to this or other declines in domestic industry's performance factors over the period of investigation.

In considering whether there are other factors that adversely impacted the domestic industry, we find that the economic downturn contributed to the domestic industry's declining performance, particularly in 2009. Apparent U.S. consumption declined by *** in both the merchant market and the total U.S. PVA market between 2007 and 2009.[58] While subject imports were pulled into the U.S. market from 2007 to 2008, as the economic downturn evolved from 2008 to 2009, subject imports' share of the merchant market declined. We find that the economic downturn in 2009 contributed to the domestic industry's deteriorating condition in the merchant market.[59]

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[50] The domestic industry's sales quantity declined from *** in 2007 to *** in 2008 and to *** in 2009. The value of the domestic industry's net commercial sales increased from $*** in 2007 to $*** in 2008, and then declined to $*** in 2009. CR/PR at Table VI-8.

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

[52] CR/PR at Table VI-11.

[53] Operating income for the total U.S. PVA market increased from $*** in 2007, equivalent to *** of net sales, to $*** in 2008, equivalent to *** of net sales, before declining *** to $*** in 2009, equivalent to *** of net sales. CR/PR at Table VI-2. The domestic industry's return on investment increased from *** in 2007 to *** in 2008 but declined to *** in 2009. CR/PR at Table VI-11.

[54] The domestic industry's capital expenditures increased from $*** in 2007 to $*** in 2008, but then declined to $*** in 2009. The domestic industry's expenditures on research and developments increased from $*** in 2007 to $*** in 2008 before declining to $*** in 2009. CR/PR at Table VI-12.

[55] CR/PR at Table VI-8. Total U.S. PVA market shipment quantities and net sales values were also higher in interim 2010 compared to interim 2009. CR/PR at Tables III-3b and VI-8.

[56] CR/PR at Table VI-8. The domestic industry's capital expenditures were $*** in interim 2010, compared to $*** in interim 2009. The domestic industry's expenditures on research and development were $*** in interim 2010, compared to $*** in interim 2009. CR/PR at Table VI-12.

[57] With respect to the total U.S. PVA market, the domestic industry's operating income was $*** in interim 2010, equivalent to *** of net sales, as compared to $*** in interim 2009, equivalent to *** of net sales. CR/PR at Table VI-2.

[58] CR/PR at Tables IV-5b and C-6.

[59] Another supply consideration is that the domestic industry exported a large quantity of PVA during the period examined. Specifically, the domestic industry's exports of PVA as a share of its total shipments ranged from ***

(continued...)

In addition to our findings concerning subject import volume and the absence of significant price effects by subject imports from Taiwan, discussed above, we cannot ignore the ***.[60] [61] The domestic industry's ***. A close comparison of the cost structures of SSCA (***) and DuPont (***) shows ***. Specifically, DuPont and SSCA had ***.[62] The *** in cost structure is primarily due to dramatic differences in ***. In 2007 and 2008, *** in interim 2009 and interim 2010.[63]

SSCA's ***, and DuPont's *** are largely attributable to the ***. The *** are entirely unrelated to imports of subject PVA from Taiwan.[64] [65]

In sum, while subject imports increased in volume and market share from 2007 to 2008, this increase was in response to the domestic industry's force majeure events. Supply issues, in addition to the force majeure events, suggest that customers have a need for alternative sources of supply, including continued sourcing by subject imports from Taiwan. Subject import trends, with the exception of the 2007-2008 response to the force majeure events, have followed demand and not been at the expense of the domestic industry. We recognize that the direct price comparison data shows consistent underselling. However, we find these direct comparisons have limitations and have afforded them less weight in our analysis. Moreover, we find that the reported underselling by subject imports did not lead to significant price depression or suppression or to substantial increases in subject imports or to significant gains in market share by subject imports at the expense of the domestic industry. We do not find that subject imports have had a significant adverse impact on the domestic industry's condition. The decline in overall domestic industry's merchant market performance from 2008 to 2009, and continued weak performance between interim periods is primarily due to the economic downturn and the ***.

For all of the reasons discussed above, including our findings concerning subject import volume from Taiwan and the lack of significant price effects we are unable to conclude that subject imports are having an adverse impact on the domestic industry. Accordingly, we find that there is no material injury by reason of subject imports of PVA from Taiwan.

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[59] (...continued)
during the period examined. CR/PR at Table III-3b. According to SSCA, it pursues export opportunities as a means of boosting its rate of capacity utilization and reducing its fixed costs. Hearing Tr. at 24 (Neuheardt).

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

[61] See Altx, Inc. v. United States, Slip Op. 02-65 at 17 (Ct. Intl Trade, July 12, 2002), aff'd 370 F.3d 1108, 1120-21 (Fed. Cir. 2004) ("Evaluating the domestic industry 'as a whole,' however, is not a license to ignore information that would give context and meaning to the data it is analyzing in assessing the domestic industry's performance. Indeed, the statutory directive to analyze the industry 'as a whole' compels an evaluation of all material factors raised by the parties that would render a more accurate reading of the health of the industry.").

[62] CR/PR at Table VI-9. ***. CR/PR at Table VI-9.

[63] SSCA's raw material costs (net of byproduct) as a share of net sales ratio was *** in interim 2010; DuPont's raw material costs (net of byproduct) as a share of net sales ratio was *** in interim 2010. CR/PR at Table VI-5.

[64] See Wooden Bedroom Furniture from China, Inv. No. 731-TA-1058 (Final), USITC Pub. 3743 (December 2004) at 29 ("the level of support by the industry is not dispositive"), and n. 234 (citing Allegheny Ludlum Corp. v. United States 287 F.3d 1365, 1375-76 (Fed Cir. 2002)).

[65] Commission Pearson finds this to be an unusual case with certain unique aspects deserving of additional comment. He is not aware of another case during his tenure with only two domestic firms in which the *** petitioning firm was ***. While the affirmative determination in this case is based, in part, on *** experienced by the domestic industry as a whole, those *** of an antidumping duty order. Here, the *** outcome is that the ***, stands to strengthen its competitive position at the expense of the other, ***, domestic producer. In other words, *** in the domestic merchant marketplace.

III. NO THREAT OF MATERIAL INJURY BY REASON OF SUBJECT IMPORTS FROM TAIWAN

Section 771(7)(F) of the Tariff Act directs the Commission to determine whether the U.S. industry is threatened with material injury by reason of the subject imports by analyzing whether "further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted."[66] The Commission may not make such a determination "on the basis of mere conjecture or supposition," and considers the threat factors "as a whole" in making its determination whether dumped or subsidized imports are imminent and whether material injury by reason of subject imports would occur unless an order is issued.[67] In making our determination, we consider all statutory threat factors that are relevant to these investigations.[68]

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[66] 19 U.S.C. § 1677(7)(F)(ii).

[67] 19 U.S.C. § 1677(7)(F)(ii).

[68] These factors are as follows:

> (I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement) and whether imports of the subject merchandise are likely to increase,
>
> (II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,
>
> (III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,
>
> (IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices and are likely to increase demand for further imports,
>
> (V) inventories of the subject merchandise,
>
> (VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products.
>
> * * *
>
> (IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).

19 U.S.C. § 1677(7)(F)(i). To organize our analysis, we discuss the applicable statutory threat factors using the same volume/price/impact framework that applies to our material injury analysis. Statutory threat factors (I), (II), (III), (V), and (VI) are discussed in the analysis of subject import volume. Statutory threat factor (IV) is discussed in the price effects analysis, and statutory threat factor (IX) is discussed in the impact analysis. Statutory threat factor (VII) is inapplicable, as no imports of agricultural products are involved in these investigations. No argument was made that the domestic industry is currently engaging or will imminently engage in any efforts to develop a derivative or more advanced version of the domestic like product, which would implicate statutory threat factor (VIII).

A. Likely Volume of Subject Imports

We find that the volume of subject imports from Taiwan is not likely to increase significantly in the imminent future. At the outset, we acknowledge that the sole producer of subject merchandise in Taiwan, CCPC, increased production capacity during the period, has unused capacity, and exports the majority of its shipments.[69] Nevertheless, despite the subject producer's excess capacity and export orientation through the period examined, subject imports maintained an essentially steady presence in the U.S. merchant market. After an initial increase in market share from 2007 to 2008, as a result of supply disruptions in the domestic industry (as discussed above), the subject imports' market share has followed demand and trended steadily downward.[70] Although the subject producer is export oriented, its share of shipments sent to the U.S. market actually was less than what it sold in its home market in *** full years of the period, ***. CCPC's exports as a share of its total shipments to the U.S. market fluctuated between years, increasing from *** in 2007 to *** in 2008, before declining to *** in 2009; exports to the U.S. market as a share of CCPC's total shipments in interim 2010 was ***, compared to *** in interim 2009, and is projected to be *** in 2010 and *** in 2011.[71] Subject import volumes, with the exception of 2007-2008, have followed demand trends in the U.S. market; when apparent U.S. consumption fell by *** between 2008 and 2009, commercial shipments of subject imports fell by ***.[72] Despite having excess capacity in 2009, CCPC's export shipments to the U.S. market, as a share of its total shipments, during the worst year of the economic downturn were *** percentage points less than they had been in 2008. This appears to be consistent with CCPC's stated policy of maintaining "a steady market share in the United States, in line with the forecasted demand."[73] CCPC asserts that the company's global strategy for 2010 included the assumption that it ***, as is reflected in the translated minutes of company meetings held in December 2009 and July 2010.[74] CCPC states that this strategy stems from its desire to service the faster growing markets of Asia and Europe.[75]

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[69] CCPC's capacity increased in 2009 by *** pounds. CR/PR at VII-1 - VII-2 and Table VII-1; see also Hearing. Tr. at 207 (Mr. Chen). This was the first increase in capacity implemented by CCPC since 2000. Hearing Tr. at 149 (Mr. Chen). Capacity utilization declined from *** in 2007 to *** in 2009, but was *** in interim 2010, as compared to *** in interim 2009. CCPC projects that capacity utilization in 2011 will be ***. CR/PR at Table VII-1. Exports as a share of subject producer's total shipments increased steadily from *** in 2007 to *** in 2009, and were *** in interim 2010 as compared to *** in interim 2009. CCPC projects that exports will be *** of total shipments in 2011. CR/PR at Table VII-1.

[70] As explained above, we rely primarily on merchant market data for our analysis since the captive production provision applies but also analyze data "with respect to the whole market as well." Polyvinyl Alcohol from Taiwan, Inv. No. 731-TA-1088 (Preliminary), USITC Pub. 3732 at 17 (Oct. 2004). After subject imports initially increased their market share of apparent U.S. consumption in the merchant market from *** in 2007 to *** in 2008, their share declined to *** in 2009. The subject import market share in interim 2010 was ***, as compared to *** in interim 2009. See CR/PR at Table C-6. For the total U.S. PVA market, after subject imports initially increased their market share from *** in 2007 to *** in 2008, their market share declined to *** in 2009. Subject import market share in interim 2010 was ***, as compared to *** in interim 2009. CR/PR at Table C-3.

[71] CR/PR at Table VII-1. Over the entire period January 2007 to June 2010, the Taiwanese home market was more important to CCPC than was the U.S. market. CR at II-25 to II-26 and n.39; PR at II-15 and n.39.

[72] CR/PR at Table C-6.

[73] Hearing Tr. at 149 (Mr. Chen); see also Hearing Tr. at 226 (Mr. Sim).

[74] See Respondents' Posthearing Brief at 21-23.

[75] Hearing Tr. at 149-50 and 184-85 (Mr. Chen); Respondents' Posthearing Brief at 22 (indicating that while CCPC intends to maintain shipments to the United States "unchanged" in 2010, they will increase shipments to Asia by at least *** percent and shipments to Europe by at least *** percent), and 19 (indicating that with respect to projected demand for PVA in Europe, "CCPC *** the levels reported in the CEH Report. Further CCPC projects

(continued...)

Nor do we find the fact that CCPC has recently completed *** of new capacity inside China (in Changshu, Jiangsu Province) to portend increased volumes of subject imports from CCPC to the U.S. merchant market.[76] As explained by CCPC's representative at the hearing, CCPC's new capacity in China may, in fact, be replacing old, obsolete capacity rather than supplementing it, and further, that demand growth for PVA in China remains strong.[77] Although the projection for annual growth in PVA demand in China over the period 2009-2014 from the Chemical Economics Handbook shows growth in China (at ***) being below the global average (at ***), the fact that the PVA market in China is the world's largest means that the absolute increase in Chinese PVA consumption over this period, expected to be ***, still amounts to more than 2009 U.S. merchant market consumption of all PVA.[78] The large home market for PVA in China is illustrated by the fact that, despite being the world's largest producer of PVA, China only exports *** of its production,[79] and only accounts for *** of world exports.[80]

We have also examined other applicable statutory factors pertaining to likely subject import volume. Inventories of subject merchandise held by both the producer of subject merchandise in Taiwan and by U.S. importers of subject merchandise have declined steadily since the end of 2008.[81] We also acknowledge that investigating authorities in the European Union (2006-07) have conducted investigations of imports of PVA from Taiwan, but in the end found no dumping.[82] [83]

There is no indication on the record that CCPC's export behavior will change significantly in the imminent future in a manner that would lead to substantial increases in subject imports in the U.S. market. Thus, we do not find that the rate of increases in the volume and market share of subject imports during the period examined nor the excess production capacity in Taiwan indicate a likelihood of substantially increased subject imports from Taiwan in the imminent future.

B. Likely Price Effects

We found above that subject imports do not currently have significant price effects, notwithstanding that the reported price comparison data show that subject imports undersold the domestic like product throughout the period examined. Underselling did not lead to significantly increased imports during the period examined. Nor does the record indicate that any continued underselling would increase demand for subject imports from Taiwan. There was no price depression on this record as prices for all

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[75] (...continued)
that the growth in demand in China will be ***"), and Exhibit 7.

[76] See Respondents' Posthearing Brief at 21.

[77] Hearing Tr. at 151-52, 181, 185, & 203-06 (Mr. Chen).

[78] CR/PR at Tables VII-3 & C-6. Respondents also provide their own estimate of PVA demand growth in the Chinese market. Respondents' Posthearing Brief at 19 & Exhibit 7 (predicting *** percent demand growth in China).

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

[80] CR/PR at Table VII-4 (using Global Trade Atlas data).

[81] Inventories held by CCPC in Taiwan, as a share of production, initially increased from *** percent at the end of 2007 to *** percent at the end of 2008, but then declined to *** percent at the end of 2009. In interim 2010, CCPC's inventories as a share of production were *** percent, compared to *** in interim 2009. CR/PR at Tables VII-1. Inventories of subject merchandise held by importers, as a share of U.S. shipments of imports, also initially increased from *** percent at the end of 2007 to *** percent at the end of 2008, but then declined to *** percent at the end of 2009, and were *** in interim 2010, compared to *** in interim 2009. CR/PR at Table VII-2.

[82] See CR at VII-5 to VII-6.

[83] Respondents argued that the foreign producer of subject merchandise is not able to shift production from other products to subject PVA. See Respondents' Posthearing Brief at 14. Petitioner made no argument on this point.

five U.S. producers' pricing products, although down somewhat from peaks in the second half of 2008, were higher in 2010 than they were at any point in 2007.[84] Likewise, as explained above, we do not find price suppression as the domestic industry's COGS as a share of net sales ratio for the merchant market fluctuated in a narrow range over the full year periods, and was lower in interim 2010 than in interim 2009;[85] the COGS as a share of net sales ratio for the total U.S. PVA market declined steadily over the full years, and the ratio was lower in interim 2010 than it was in interim 2009.[86] [87]

In light of our prior finding that subject import volume is not likely to increase significantly, and the fact that subject import pricing did not stimulate demand for additional subject import volumes during the period examined, we do not find that subject imports will enter the U.S. market at prices that are likely to have significant depressing or suppressing effect on domestic prices in the imminent future.

C. Likely Impact

Based on our examination of the domestic industry's performance indicators during the period examined, we do not find the domestic industry to be vulnerable. Moreover, we do not find that declines in the domestic industry's performance during the period examined were due to subject imports to any significant degree, as also discussed above. The record indicates likely improvement in demand for PVA. The Chemical Economics Handbook projects that, over the period 2009-2014, PVA demand in the U.S. market (***) will exceed average world demand growth (***).[88] With improvements in demand, both the domestic industry's capacity utilization and operating income margins showed improvement in interim 2010.[89] PVA production is a capital-intensive industry and with higher capacity utilization, industry performance is likely to improve.[90] As discussed above, although the domestic industry's performance in the merchant market improved in interim 2010, its performance was influenced largely by *** and not the continued presence of subject imports.

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[84] CR/PR at Tables V-4 to V-8.

[85] The domestic industry's COGS as a share of net sales ratio for the merchant market initially increased from *** in 2007 to *** in 2008 before decreasing to *** in 2009; the ratio was *** in interim 2010, as compared to *** in interim 2009. CR/PR at Tables VI-8 and C-6.

[86] The domestic industry's COGS as a share of net sales ratio for the total U.S. PVA market steadily decreased from *** in 2007 to *** in 2009; the ratio was *** in interim 2010, as compared to *** in interim 2009. CR/PR at Tables VI-2 and C-3.

[87] In order to obtain a more favorable trend in the COGS as a share of net sales ratio, the petitioner would have the Commission compare the second half of 2009 with the first half of 2010. Not only is such a comparison not the standard practice of the Commission, see Polyvinyl Alcohol from Germany and Japan, Inv. Nos. 731-TA-1015-1016 (Final), USITC Pub. 3604 (June 2003), at 24, but petitioner justifies their suggested methodology by asking the Commission to ignore the same *** that largely drives the petitioner's impact analysis. Petitioner's Posthearing Brief at 11-12 & n.13. However, ignoring *** financial data, supports our conclusion that the domestic industry has not been injured by reason of subject imports. *** and the domestic merchant market industry as a whole. SSCA's operating income margin was *** in interim 2009. CR/PR at Table VI-9. As discussed above, the *** in 2009 and interim periods primarily is due to ***.

[88] CR at II-37, n.58; PR at II-23, n.58.

[89] After declining steadily from *** in 2007 to *** in 2009, capacity utilization in interim 2010 was ***, as compared to *** in interim 2009. CR/PR at Table C-6. Merchant market operating margins, after declining steadily from *** in 2007 to *** in 2009, improved to *** in interim 2010, as compared to *** in interim 2009. CR/PR at Table C-6. Total U.S. PVA market operating income margins improved steadily from *** in 2007 to *** in 2009 and was *** in interim 2010, as compared to *** in interim 2009. CR/PR at Table C-3.

[90] CR at II-19; PR at II-12; see also Petitioner's Prehearing Brief at 15; Hearing Tr. at 176 (Mr. Boyce).

Neither have employment trends in the industry showed evidence of a threat of material injury from subject imports. The *** production and related workers (PRWs) employed by the domestic industry in 2009, although down slightly from their level in 2008 (***), were exactly the same as they were in 2007, and there were *** PRWs in interim 2010, as compared to *** PRWs in interim 2009. Also, both hours worked and wages paid increased irregularly over the full year periods and were essentially unchanged over the interim periods.[91]

Finally, the announcement by leading global PVA producer, Kuraray, on the same day as the Commission's hearing in the final phase of this investigation, that it had purchased land in the Houston, Texas area for future construction of a PVA plant indicates that prospects for the PVA business in the U.S. market remain attractive.[92]

Based on these considerations and because there is no likelihood of a substantial increase in import volume or significant price effects from the subject imports in the imminent future, we find that the subject imports will not likely have a significant adverse impact on the domestic industry.

Conclusion

Based on the record in the final phase investigations and for all of the reasons discussed above, we determine that an industry in the United States is not materially injured nor threatened with material injury by reason of the subject imports of PVA from Taiwan.

[91] Hours worked by PRWs increased irregularly from *** hours in 2007 to *** hours in 2009; PRWs worked *** hours in interim 2010, as compared to *** hours in interim 2009. Wages paid to PRWs also increased irregularly from $*** in 2007 to $*** in 2009; PRWs were paid $*** in interim 2010, essentially unchanged from interim 2009. CR/PR at Table III-7b.

[92] Respondents' Posthearing Brief at 15 & Exhibit 2 (attaching a Jan. 25, 2011 news release from Kuraray); see also ***.

PART I: INTRODUCTION

BACKGROUND

This investigation results from a petition filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by Celanese Chemicals Ltd. ("Celanese"), Dallas, TX, on September 7, 2004, alleging that an industry in the United States is materially injured and threatened with further material injury by reason of less-than-fair-value ("LTFV") imports of polyvinyl alcohol from Taiwan. On July 1, 2009, Sekisui America acquired the assets of Celanese's polyvinyl alcohol business, creating Sekisui Specialty Chemicals America, LLC ("Sekisui"). Sekisui is the successor in interest to Celanese as Petitioner in this investigation.[1]

As indicated below, the final phase of this investigation is being conducted several years after the filing of the petition as a consequence of intervening litigation regarding the Commission's preliminary determination and subsequent preliminary determination on remand.

In the preliminary phase of this investigation, the scope of the investigation consisted of all polyvinyl alcohol hydrolyzed in excess of 80 percent, whether or not mixed or diluted with commercial levels of defoamer or boric acid, except for polyvinyl alcohol in fiber form. In its September 2010 preliminary determination, at the request of Sekisui, Commerce also excluded from the scope of this investigation certain low-ash polyvinyl alcohol that is referred to in this report as PVB-grade PVA.[2] Thus, the scope of this final phase investigation is different than the scope of the preliminary phase investigation.[3]

For purposes of this report, data have been collected and presented on scope polyvinyl alcohol ("scope PVA") (defined below in the section entitled "The Subject Merchandise") and total polyvinyl alcohol ("PVA"). PVA includes scope PVA and PVB-grade PVA (defined above in footnote 2 of this section). Data have been presented on both scope PVA and PVA, because one of the issues in the final phase of this investigation is whether to define the relevant domestic like product as scope PVA or as PVA, an issue that is a predicate to the Commission's definition of the relevant domestic industry. Information relating to the background of the investigation is provided below.[4]

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[1] *** http://www.sekisuichemical.com/about/whatsnew/090702.html, retrieved August 30, 2010.

[2] PVB-grade PVA is defined as polyvinyl alcohol that meets the following specifications: Hydrolysis, Mole % of 98.40 ± 0.40, 4% Solution Viscosity 30.00 ± 2.50 centipois, and ash—ISE, wt% less than 0.60, 4% solution color 20mm cell, 10.0 maximum APHA units, haze index, 20mm cell, 5.0, maximum. PVB-grade PVA has been specifically excluded from the scope of this final phase investigation, although it was included in the scope of the preliminary phase of the investigation. See *Polyvinyl Alcohol from Taiwan: Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination*, 75 FR 55552, September 13, 2010 and Sekisui's Petition for the Imposition of Antidumping Duties on Imports of Polyvinyl Alcohol from Taiwan: Amendment, pp. 1-2, July 28, 2010.

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

[4] *Federal Register* notices since October 4, 2010 cited in the tabulation are presented in app. A.

Effective date	Action
September 7, 2004	Petition filed with Commerce and the Commission; institution of the Commission's investigation (69 FR 55653, September 15, 2004)
October 4, 2004	Commerce's notice of initiation (69 FR 59204)
October 25, 2004	Commission's preliminary determination (69 FR 63177, October 29, 2004)
March 30, 2010	Commission's preliminary determination on remand (75 FR 15726)
September 13, 2010	Commerce's preliminary determination (75 FR 55552); scheduling of final phase of Commission investigation (75 FR 61175, October 4, 2010)
January 25, 2011	Commission's hearing[1]
February 1, 2011	Commerce's final determination (76 FR 5562)
February 23, 2011	Commission's vote
March 9, 2011	Date transmited the Commission's determination to Commerce
[1] App. B lists witnesses that appearing at the hearing.	

PREVIOUS AND RELATED INVESTIGATIONS

PVA has been the subject of several prior import relief investigations in the United States. Table I-1 presents data on previous and related title VII investigations for PVA.

On October 21, 2004, the Commission determined by a vote of three to two, with one Commissioner not participating, that there was no reasonable indication that an industry in the United States was materially injured or threatened with material injury by reason of subject imports from Taiwan.[5] On November 24, 2004, Celanese appealed the determination to the CIT. On January 29, 2007, the Court issued a decision affirming the negative preliminary determination in part and remanding it in part. In a remand determination issued on April 30, 2007, the Commission majority consisting of then-Vice Chairman Shara L. Aranoff and Commissioners Irving A. Williamson and Dean A. Pinkert found a reasonable indication that an industry in the United States was materially injured by reason of subject imports from Taiwan; not having been Commissioners in the fall of 2004, these Commissioners had not participated in the original investigations, so they reviewed the record de novo on remand. Then-Chairman Okun and Commissioners Lane and Pearson, who had participated in the original investigation, again made a negative preliminary determination and filed dissenting remand views. On November 19, 2008, the CIT affirmed the affirmative preliminary injury remand determination. On January 16, 2009, domestic producer DuPont and Taiwan producer Chang Chun appealed the CIT's judgment to the Federal Circuit. On December 23, 2009, the Federal Circuit affirmed, without opinion, the CIT's November 19, 2008 decision. No party applied under 28 U.S.C. §101(c) to the U.S. Supreme Court for a writ of certiorari within the prescribed period. The judicial proceedings having ended, on March 30, 2010, the Commission published notice of its preliminary determination on remand.[6]

[5] The Commission's majority views were those of then-Vice Chairman Deanna Tanner Okun and Commissioners Daniel R. Pearson and Charlotte R. Lane. Then-Chairman Stephen Koplan and Commissioner Marcia E. Miller reached an affirmative determination, and filed dissenting views. Then-Commissioner Jennifer A. Hillman did not participate in the investigation.

[6] *Polyvinyl Alcohol from Taiwan; Determination*, 75 FR 15726, March 30, 2010.

Table I-1
PVA: Previous and related investigations, 1995-2009

Date[1]	Number	Petitioner(s)	Country	Outcome	Status
1995	731-TA-726 (Final)	Air Products Chemicals, Inc.	China	Affirmative	Order revoked due to lack of responses by domestic industry to Commerce's notice of five-year review. 66 FR 22145, May 3, 2001.
1995	731-TA-727 (Final)	Air Products Chemicals, Inc.	Japan	Affirmative	Order revoked due to lack of responses by domestic industry to Commerce's notice of five-year review. 66 FR 22145, May 3, 2001.
1995	731-TA-728 (Preliminary)	Air Products Chemicals, Inc.	Korea	Negligible/ Terminated	Commission determination, 60 FR 21829, May 3, 1995.
1995	731-TA-729 (Final)	Air Products Chemicals, Inc.	Taiwan	Affirmative	Order revoked due to lack of responses by domestic industry to Commerce's notice of five-year review. 66 FR 22145, May 3, 2001.
2002	731-TA-1018 (Preliminary)	Celanese and DuPont	Singapore	Negligible/ Terminated	Commission determination, 67 FR 65597, October 25, 2002.
2002	731-TA-1014 (Final)	Celanese and DuPont	China	Affirmative	Order in place, 68 FR 56620, October 1, 2003.[2]
2002	731-TA-1015 (Final)	Celanese and DuPont	Germany	Negative	Commission determination, 68 FR 38386, June 27, 2003.
2002	731-TA-1016 (Final)	Celanese and DuPont	Japan	Affirmative	Order in place, 68 FR 39518, July 2, 2003.
2002	731-TA-1017 (Final)	Celanese and DuPont	Korea	Affirmative	Order in place, 68 FR 56621, October 1, 2003.
2008	731-TA-1014, 1016, and 1017 (Review)	Celanese and DuPont	China, Japan, and Korea	Orders continued	Commission determinations, 74 FR 14999, April 2, 2009.

[1] "Date" refers to the year in which the investigation was instituted by the Commission.
[2] Commerce corrected the "all others" Chinese margin, which initially appeared as 7.86 percent, to the correct margin of 97.86 percent. Correction notice, 68 FR 58169, October 8, 2003.

Source: Compiled from Commission determinations and Commerce orders and revocations published in the *Federal Register*.

STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

Statutory Criteria

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

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

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

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

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 declines in output, sales, market share, profits, productivity, return on investments, 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.

Organization of the Report

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

U.S. MARKET SUMMARY

Scope PVA

Scope PVA generally is used to produce adhesives, building materials, emulsion polymerization, paper, PVB,[7] and textiles. The U.S. producers of scope PVA are E.I. du Pont de Nemours and Company ("DuPont") and Sekisui, while leading producers of scope PVA outside the United States include Chang Chun Petrochemical Co. Ltd. ("Chang Chun") of Taiwan. The leading U.S. importers of scope PVA from Taiwan are ***. Leading importers of scope PVA from nonsubject countries (primarily China, Germany, Japan, and Singapore) include ***. The leading responding U.S. purchasers of scope PVA are ***.

Apparent U.S. consumption of scope PVA totaled approximately *** pounds ($***) in 2009. Currently, two firms are known to produce scope PVA in the United States. U.S. producers' U.S. shipments of scope PVA totaled *** pounds ($***) in 2009, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from Taiwan totaled *** pounds ($***) in 2009 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from nonsubject sources totaled *** pounds ($***) in 2009 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

PVA

PVA generally is used to produce adhesives, building materials, emulsion polymerization, paper, PVB, and textiles. The U.S. producers of PVA are DuPont, Sekisui, and Solutia Inc. ("Solutia"), while leading producers of PVA outside the United States include Chang Chun of Taiwan.[8] The leading U.S. importers of PVA from Taiwan are ***. Leading importers of PVA from non-subject countries (primarily China, Germany, Japan, and Singapore) include ***.[9] The leading U.S. purchasers of PVA are ***.

Apparent U.S. consumption of PVA totaled approximately *** pounds ($***) in 2009. Currently, three firms are known to produce PVA in the United States. U.S. producers' U.S. shipments of PVA totaled *** pounds ($***) in 2009 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from Taiwan totaled *** pounds ($***) in 2009 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from nonsubject sources totaled *** pounds ($***) in 2009 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

SUMMARY DATA AND DATA SOURCES

A summary of data collected in the investigation is presented in appendix C. Tables C-1 through C-3 present summary data on the total U.S. market for scope PVA, PVB-grade PVA, and PVA, respectively. Table C-4 presents summary data on the total U.S. PVA market using the official import statistics of Commerce as a proxy for shipments of imports. Tables C-5 and C-6 present summary data on the U.S. commercial market for scope PVA and PVA, respectively. Except as noted, U.S. industry data are based on questionnaire responses of two firms that accounted for all known U.S. production of scope

[7] ***. ***'s producer questionnaire response.

[8] ***.

[9] ***.

PVA during 2009 or the three firms that accounted for all known U.S. production of PVA during 2009.[10] U.S. imports are based on questionnaire responses of 15 importers.[11]

NATURE AND EXTENT OF SALES AT LTFV

Sales at LTFV

On February 1, 2011, Commerce published a notice in the *Federal Register* of its final determination of sales at LTFV with respect to imports from Taiwan. Commerce calculated an antidumping duty margin of 3.08 percent for all exporters and producers of PVA from Taiwan.[12]

THE SUBJECT MERCHANDISE

Commerce's Scope

Commerce has defined the scope of this investigation as follows:

> The merchandise covered by this investigation is PVA. This product consists of all PVA hydrolyzed in excess of 80 percent, whether or not mixed or diluted with commercial levels of defoamer or boric acid. PVA in fiber form and PVB-grade low-ash PVA are not included in the scope of this investigation. PVB-grade low-ash PVA is defined to be PVA that meets the following specifications: Hydrolysis, Mole % of 98.40 +/- 0.40, 4% Solution Viscosity 30.00 +/- 2.50 centipois, and ash-ISE, wt% less than 0.60, 4% solution color 20mm cell, 10.0 maximum APHA units, haze index, 20mm cell, 5.0, maximum. The merchandise under investigation is currently classifiable under subheading 3905.30.00 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheading is provided for convenience and customs purposes, the written description of the merchandise under investigation is dispositive.[13]

Tariff Treatment

Polyvinyl alcohol is imported under HTS subheading 3905.30.00 and enters the United States at a column-1 general duty tariff rate of 3.2 percent *ad valorem* for imports from countries with normal trade relations, including Taiwan. Table I-2 presents current tariff rates for PVA. Thus, imports under this HTS subheading include not only scope PVA but also non-scope products low-hydrolysis polyvinyl alcohol, polyvinyl alcohol in fiber form, and PVB-grade PVA.

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[10] A third U.S. producer, Solutia, also provided the Commission with a questionnaire response. Its response has been included in the PVA tables because Solutia only produces PVB-grade PVA. ***.

[11] U.S. importers' questionnaire data were used to calculate imports in this report because official import statistics of Commerce include all forms of PVA imported under Harmonized Tariff Schedule of the United States ("HTS") subheading 3905.30.00, including forms that are specifically excluded from the scope of these investigations such as polyvinyl alcohol in fiber form, PVB-grade PVA, and low-hydrolysis polyvinyl alcohol (See *Part IV* and appendix C for more information).

[12] *Polyvinyl Alcohol from Taiwan: Final Determination of Sales at Less Than Fair Value*, 76 FR 5562, February 1, 2011.

[13] *Polyvinyl Alcohol from Taiwan: Final Determination of Sales at Less Than Fair Value*, 76 FR 5562, February 1, 2011.

Table I-2
PVA: Tariff rates, 2011

HTS provision	Article description	General[1]	Special	Column 2[2]
		Rates *(percent ad valorem)*		
3905	Polymers of vinyl acetate or of other vinyl esters, in primary forms; other vinyl polymers in primary forms:			
3905.30.00	Poly(vinyl alcohol), whether or not containing unhydrolyzed acetate groups.....	3.2%	([3])	37.5%

[1] Normal trade relations, formerly known as the most-favored-nation duty rate, applicable to Taiwan.
[2] Applies to imports from a small number of countries that do not enjoy normal trade relations duty status.
[3] General note 3(c)(i) defines the special duty program symbols enumerated for this provision.

Source: Harmonized Tariff Schedule of the United States (2011).

THE PRODUCT

Description and Applications[14]

PVA is a water-soluble synthetic polymer, usually sold as a white granular solid or in powdered form. PVA can be categorized on the basis of the degree of hydrolysis, the viscosity of an aqueous solution, and the average molecular weight of the finished product. PVA is very stable in dry form. It is nontoxic and therefore considered safe to handle and relatively environmentally friendly. Care must be taken, however, to minimize airborne dust concentrations during shipping and storage to reduce the potential for dust explosions.

The degree of hydrolysis is determined by the percentage of acetate groups in the polyvinyl acetate feedstock that are replaced by hydroxyl groups in the finished PVA. Fully hydrolyzed PVA has a replacement percentage in excess of 98 percent. The viscosity (resistance to shear stress or flow) of an aqueous solution of PVA increases as the molecular weight of the PVA increases. The molecular weight is determined by the average length of the polymer chain in the finished product in terms of monomer units. Low-viscosity grades tend to have PVA chain lengths as low as 300 monomer units, with average molecular weights around 45,000 to 55,000 unified atomic mass units (u), whereas high-viscosity, fully hydrolyzed grades have PVA chain lengths up to 3,500 monomer units and average molecular weights around 200,000 to 225,000 u. The degree of hydrolysis of PVA affects a variety of PVA properties, such as solution interfacial tensions, compatibility, reaction kinetics, rheology, and water solubility.

In the United States, PVA is used as an intermediate in the production of polyvinyl butyral ("PVB"), which is an adhesive used between panes of automotive safety glass or load-resistant architectural glass; in the textile and paper industries in sizing formulations; as a binder in adhesive and soil binding formulations; and as an emulsion or polymerization aid in colloidal suspensions, water-soluble films, cosmetics, and joint compounds.

[14] In general, the information contained in this section was drawn from the publication for the reviews *Polyvinyl Alcohol from China, Japan, and Korea, Investigation Nos. 731-TA-1014, 1016, and 1017 (Review)*, USITC Publication 4067, March 2009.

For most applications, PVA is dissolved in an aqueous solution. PVA's solubility behavior in water depends on several factors, including degree of polymerization, degree of hydrolysis, drying temperature, particle size, and molecular weight. PVA polymers possess variable solubility properties, ranging from soluble in cold (room temperature) water to soluble only in hot water. For example, PVA of 88 percent hydrolysis is soluble in both cold and hot water, whereas 98 percent hydrolyzed PVA may be soluble only in hot water. All other characteristics being equal, the higher the degree of hydrolysis, the lower the solubility. By altering certain product characteristics, however, solubility can be changed. All standard grades of PVA, regardless of degree of hydrolysis, must be "cooked" to achieve complete solubility. At the end of the saponification process,[15] PVA is a hard solid suitable for grinding into granular or powdered form.

PVA is sold in a variety of standard and specialty grades, each grade varying according to its molecular weight and the degree of hydrolysis. The degree of hydrolysis is commonly denoted as super (more than 99 percent hydrolyzed), fully (98-99 percent hydrolyzed), intermediate (90-98 percent hydrolyzed), and partial (85-89 percent hydrolyzed).[16]

The specific performance of various grades of PVA varies with the degree of hydrolysis and viscosity. For example, the greater the degree of hydrolysis, the better the water resistance. For this reason, in adhesive applications that require water resistance, a fully hydrolyzed grade of PVA is used. On the other hand, in adhesive applications that do not require water resistance, a partially hydrolyzed PVA may be used. Similarly, paper manufacturers select a specific grade of PVA depending on the property required for the paper. Grease and water resistance, ink receptivity, and other components of the size solution determine grade selection. In the textile market, where PVA is used as a warp sizing for yarns to prevent breakage during weaving, various grades of PVA are selected for use depending on the yarn, machine type, other components of the sizing solution (e.g., starch), required viscosity, abrasion resistance, and ease of solution removal after fabric weaving.

Although all grades of PVA are not completely interchangeable with other grades, more than one grade may be sold to specific end-use markets. For example, fully hydrolyzed PVA can be used in many of the same end-uses in which intermediate or partially hydrolyzed PVA can be used, such as textiles, paper, and adhesives. The same grade of PVA is frequently sold for different commercial uses, and many end-users are able to use a wide range of grades. However, many applications have evolved using particular grades such that substitution, although possible, could involve some cost and time to reformulate, and end-users tend to avoid changing the grade of PVA they use in their applications because their formulas and process parameters might have to be adjusted. Because it is a synthetic water soluble polymer with unique characteristics, PVA has few substitutes for most end-use applications.

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[15] Saponification is the chemical reaction in which an ester is heated with aqueous alkali to form an alcohol and the sodium salt of the acid corresponding to the ester.

[16] *Polyvinyl Alcohol from China, Japan, and Korea, Investigation Nos. 731-TA-1014, 1016, and 1017 (Review)*, USITC Publication 4067, March 2009, p. 13. The definitions of fully, intermediate, and partially hydrolyzed PVA in terms of degrees of hydrolysis vary somewhat within the industry.

Manufacturing Processes[17]

PVA is generally manufactured by first polymerizing the vinyl acetate monomer (VAM) into polyvinyl acetate and then hydrolyzing the acetate groups with methanol in the presence of anhydrous sodium methylate or aqueous sodium hydroxide at moderate temperatures and pressures. This is a continuous process in which the end-product is PVA hydrolyzed in excess of 80 percent. *** a continuous belt process to make PVA. *** a reactor process to make PVA.[18]

Acetic acid, a by-product, could either be recycled to produce VAM or sold in the acetic acid market. Given the high-volume need for acetic acid in the production of VAM, in general producers return the by-product to their own production process rather than sell it on the market.

***.[19] ***.[20] Upon Sekisui's acquisition of Celanese, ***.[21] ***.

DOMESTIC LIKE PRODUCT ISSUES

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

Table I-1, presented earlier, listed several previous investigations of polyvinyl alcohol. In the 1995 set of investigations, the scope was defined as polyvinyl alcohol hydrolyzed in excess of 85 percent, whether or not mixed or diluted with defoamer or boric acid, except for polyvinyl alcohol in fiber form.[22] In those investigations, Solutia's corporate predecessor (Monsanto) argued that PVB-grade PVA was a separate domestic like product and Celanese's corporate predecessor (petitioner Air Products) argued that the wet ethanol-swollen PVA that Monsanto and DuPont captively consumed in the production of PVB should not be included in the like product because the scope referred to dry PVA. The Commission rejected both of these arguments and also rejected arguments made by a purchaser that different hydrolysis levels (i.e., above or below 95 percent hydrolysis) or specifications (including Excipient Good Manufacturing Principles) were a basis for distinguishing among different domestic like products. The Commission found one like product consisting of the continuum of PVA hydrolyzed in excess of 85 percent (including PVB-grade PVA).[23]

In the preliminary phase of the 2002 investigations, the scope included all polyvinyl alcohol hydrolyzed in excess of 80 percent, whether or not mixed or diluted with commercial levels of defoamer or boric acid and excluded polyvinyl alcohol in fiber form. Petitioners Celanese and DuPont asked the

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[17] In general, the information contained in this section was drawn from the publication for the reviews *Polyvinyl Alcohol from China, Japan, and Korea, Investigation Nos. 731-TA-1014, 1016, and 1017 (Review)*, USITC Publication 4067, March 2009.

[18] ***'s producer questionnaire responses.

[19] ***'s producer questionnaire response.

[20] ***'s producer questionnaire response.

[21] ***'s producer questionnaire response.

[22] (1) Polyvinyl alcohol covalently bonded with acetoacetylate, carboxylic acid, or sulfonic acid uniformly present on all polymer chains in a concentration equal to or greater than two mole percent and (2) polyvinyl alcohol covalently bonded with silane uniformly present on all polymer chains in a concentration equal to or greater than one-tenth of one mole percent, also were excluded from scope of the investigations.

[23] *Polyvinyl Alcohol from China, Japan, and Taiwan*, Investigation Nos. 731-TA-726, 727, and 729 (Final), USITC Publication 2960, May 1996, p. 5.

Commission to find a single domestic like product coextensive with the scope of the investigation whereas Solutia argued that PVB-grade PVA was a separate domestic like product. The Commission defined a single domestic like product consisting of all polyvinyl alcohol coextensive with the scope of those investigations, including PVB-grade PVA.[24]

In the final phase of the 2002 set of investigations, in addition to low-hydrolysis polyvinyl alcohol and polyvinyl alcohol in fiber form, petitioners Celanese and DuPont agreed to exclude fourteen additional specialty products from the scope of the investigations.[25] Celanese and DuPont asked the Commission to define a single domestic like product consisting of PVA produced domestically that met the specifications described in Commerce's scope definition. Respondents Solutia and Clariant Corp., a U.S. importer of subject merchandise, argued that PVB-grade PVA was a separate domestic like product. The Commission found one like product encompassing all domestically produced polyvinyl alcohol hydrolyzed in excess of 80 percent and meeting the specifications described in Commerce's scope, including PVB-grade PVA.[26]

In the 2008 review investigations of the antidumping duty orders resulting from the 2002 investigations, the scope was defined as all polyvinyl alcohol hydrolyzed in excess of 80 percent, whether or not mixed or diluted with commercial levels of defoamer or boric acid, but not including polyvinyl alcohol in fiber form or fourteen other specialty products. Celanese and DuPont agreed with the Commission's definition of the like product in the 2002 original investigations. No party took a different position. Finding no material changes in pertinent facts from the original investigations, the Commission

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[24] *Polyvinyl Alcohol from China, Germany, Japan, Korea, and Singapore*, Investigation Nos. 731-TA-1014 to 1018 (Prelim.), USITC Publication 3553, pp. 4-9.

[25] *Polyvinyl Alcohol from Germany and Japan*, Investigation Nos. 731-TA-1015-1016 (Final), USITC Publication 3064, June 2003, p. 4-6 & n.12 and *Polyvinyl Alcohol from China and Korea*, Investigation Nos. 731-TA-1014 and 1017 (Final), USITC Publication 3634, September 2003, p. 6. The excluded products were: (1) PVA with hydrolysis less than 83 mole percent and certified not for use in the production of textiles; (2) PVA with hydrolysis greater than 85 percent and viscosity greater than or equal to 90 cps; (3) PVA with a hydrolysis greater than 85 percent, viscosity greater than or equal to 80 cps but less than 90 cps, certified for use in an ink jet application; (4) PVA for use in the manufacture of an excipient or as an excipient in the manufacture of film coating systems which are components of a drug or dietary supplement, and accompanied by an end-use certification; (5) PVA covalently bonded with cationic monomer uniformly present on all polymer chains in a concentration equal to or greater than one mole percent; (6) PVA covalently bonded with carboxylic acid uniformly present on all polymer chains in a concentration equal to or greater than two mole percent, certified for use in a paper application; (7) PVA covalently bonded with thiol uniformly present on all polymer chains, certified for use in emulsion polymerization of non-vinyl acetic material; (8) PVA covalently bonded with paraffin uniformly present on all polymer chains in a concentration equal to or greater than one mole percent; (9) PVA covalently bonded with silan uniformly present on all polymer chains certified for use in paper coating applications; (10) PVA covalently bonded with sulfonic acid uniformly present on all polymer chains in a concentration level equal to or greater than one mole percent; (11) PVA covalently bonded with acetoacetylate uniformly present on all polymer chains in a concentration level equal to or greater than one mole percent; (12) PVA covalently bonded with polyethylene oxide uniformly present on all polymer chains in a concentration level equal to or greater than one mole percent; (13) PVA covalently bonded with quaternary amine uniformly present on all polymer chains in a concentration level equal to or greater than one mole percent; and (14) PVA covalently bonded with diacetoneacrylamide uniformly present on all polymer chains in a concentration level greater than three mole percent, certified for use in a paper application. *Id.*

[26] *Polyvinyl Alcohol from Germany and Japan*, Investigation Nos. 731-TA-1015-1016 (Final), USITC Publication 3604, June 2003, p. 4-6 and *Polyvinyl Alcohol from China and Korea*, Investigation Nos. 731-TA-1014 and 1017 (Final), USITC Publication 3634, September 2003, p. 6.

found one domestic like product encompassing all PVA regardless of grade and coextensive with the scope (including PVB-grade PVA).[27]

In the preliminary phase of this investigation, the scope was defined as all polyvinyl alcohol hydrolyzed in excess of 80 percent, whether or not mixed or diluted with commercial levels of defoamer or boric acid, but not including polyvinyl alcohol in fiber form. Petitioner Celanese argued that there had been no fundamental changes in the relevant factual criteria since the Commission's 2003 PVA investigations and asked the Commission to find that all polyvinyl alcohol hydrolyzed in excess of 80 percent constituted a single domestic like product. DuPont agreed. Chang Chun did not dispute this proposed definition of the domestic like product. Because there was no factual information on the record to call into question the Commission's analysis or conclusion in the 2003 investigations, and absent any party arguments to the contrary, the Commission found, based on the record in the preliminary phase of this investigation, a single domestic like product defined coextensively with the scope of this investigation, consisting of all polyvinyl alcohol hydrolyzed in excess of 80 percent, whether or not mixed or diluted with commercial levels of defoamer or boric acid, but not including polyvinyl alcohol in fiber form.[28]

In July 2010, Sekisui amended the petition seeking to exclude PVB-grade PVA from the scope of this investigation and from the definition of the corresponding domestic like product.[29] *** reported that the definition for PVB-grade PVA does not include the PVA that ***. *** falls within the scope PVA definition.[30] *** reported that ***.[31]

Physical Characteristics and Uses

As discussed above, polyvinyl alcohol products are produced in a range of hydrolysis levels, viscosity levels, and molecular weights. Depending on its characteristics, polyvinyl alcohol may be soluble in cold water, hot water, or both. Polyvinyl alcohol is sold in a variety of standard and specialty grades, depending on the hydrolysis, viscosity, and other properties of the product and the end-use applications for which it is being used.

According to ***, PVB-grade PVA must be extremely clear and colorless, whereas scope PVA does not need to meet the same stringent requirements in order to be used in adhesives, emulsion polymerization, paper, and textile end-use applications.[32] *** reports that PVB-grade PVA is evaluated based on ***.[33] According to ***, the hydrolysis, viscosity, ash, and other physical characteristics of *** and PVB-grade PVA used to produce PVB are very similar.[34]

As noted above in the Description and Applications section of this report, domestically produced scope PVA is sold for various end-use applications including but not limited to adhesives, emulsion polymerization, paper, and textiles. Although all grades of PVA are not completely interchangeable with

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[27] *Polyvinyl Alcohol from China, Japan, and Korea*, Investigation Nos. 731-TA-1014, 1016, and 1017 (Review), USITC Publication 4067, March 2009, p. 9.

[28] *Polyvinyl Alcohol from Taiwan*, Investigation No. 731-TA-1088 (Preliminary), USITC Publication 3732, October 2004, p.8-11.

[29] Sekisui's Petition for the Imposition of Antidumping Duties on Imports of Polyvinyl Alcohol from Taiwan: Amendment, pp. 1-2, July 28, 2010. Commerce subsequently amended the scope of the investigation to reflect the exclusion. See section entitled "Commerce's Scope" in *Part I* of this report.

[30] ***'s producer questionnaire response.

[31] ***'s producer questionnaire response.

[32] ***'s producer questionnaire response.

[33] ***.

[34] ***'s producer questionnaire response.

other grades, more than one grade may be sold to specific end-use markets, as discussed above. PVB-grade PVA is used to produce polyvinyl butyral ("PVB"). PVB is a resin used in the manufacturing of both automotive safety glass and load-resistant architectural glass for use in commercial construction. On the other hand, ***.[35]

Manufacturing Facilities and Production Employees

The same two main chemical reactions, polymerization and saponification, are used to produce both PVB-grade PVA and scope PVA. ***[36] ***. In 2008, ***.[37] ***.[38] On the other hand, ***.[39]

*** reported that ***.[40] *** reported that ***.[41] ***.[42]

Interchangeability and Customer and Producer Perceptions

According to ***, scope PVA cannot be used as a substitute for PVB-grade PVA because PVB production requires a product that meets stricter requirements such as low-ash content and colorlessness. It contends that the production of PVB is very sensitive to minor quality variations, which can affect the clarity of the downstream PVB. Further, it asserts, a significant amount of time, effort, and cost are associated with qualifying PVB-grade PVA for use in PVB production, given the stricter requirements associated with PVB-grade PVA. Although it may not be economical, *** asserts, it is possible for PVB-grade PVA to be used by scope PVA customers.[43]

According to ***, *** PVA is fully interchangeable with PVB-grade PVA. However, partially hydrolyzed scope PVA cannot be interchanged with fully hydrolyzed scope PVA or PVB-grade PVA to make PVB because PVB requires fully hydrolyzed PVA. With respect to scope PVA, *** asserts, customers perceive greater differences among grades (e.g., partially hydrolyzed versus fully hydrolyzed), whereas producers perceive the differences to be relatively minor along a continuum.[44]

Although the Commission also asked importers and purchasers about similarities and differences between scope PVA and PVB-grade PVA, they generally did not answer these questions or asserted that they did not have enough familiarity with both products to be able to answer such questions.[45]

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[35] ***'s producer questionnaire response.

[36] ***. ***.

[37] ***'s producer questionnaire response.

[38] ***.

[39] ***.

[40] ***'s producer questionnaire response.

[41] ***'s producer questionnaire response.

[42] ***'s producer questionnaire response and ***'s producer questionnaire response.

[43] ***'s producer questionnaire response.

[44] ***'s producer questionnaire response.

[45] See importers' questionnaire responses to Question II-7 and purchasers' questionnaire responses to Question IV-10. The few importers and purchasers that did comment tended to mention the differences between scope PVA and PVB-grade PVA. ***.

Channels of Distribution

According to ***, PVB-grade PVA is sold directly to end users, whereas scope PVA is sold to both end users and distributors. *** assert that PVB-grade PVA is a major raw material for the production of PVB, while scope PVA is often a minor input for the production of various end uses (*e.g.*, the paper industry).[46] According to ***, *** PVA used to produce PVB and non-PVB-grade PVA sold in the merchant market have identical channels of distribution in that they are sold directly to end users, i.e., PVB producers.[47] Additional details regarding the distribution of domestically produced and imported scope PVA are presented in Part II of this report, *Conditions of Competition in the U.S. Market*.

Price

Table I-3 presents average unit values for U.S. producers' U.S. shipments (including internal consumption) of scope PVA and PVB-grade PVA in the United States. Pricing practices and prices reported for domestically produced and imported scope PVA and PVB-grade PVA in response to the Commission's questionnaires are presented in Part V of this report, *Pricing and Related Information*.

Table I-3
PVA: Average unit values of U.S. producers' U.S. shipments of scope PVA and PVB-grade PVA, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

[46] ***'s producer questionnaire response and ***'s producer questionnaire response.

[47] ***'s producer questionnaire response.

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

U.S. CHANNELS OF DISTRIBUTION

The three U.S. producers of PVA (DuPont, Sekisui, and Solutia) reported at least some internal consumption and DuPont and Sekisui reported U.S. commercial shipments during January 2007-June 2010, whereas the responding importers of PVA reported only U.S. commercial shipments during this period. There were six reporting importers of PVA from Taiwan (***)[1] and seven reporting importers of PVA from nonsubject countries.[2] The majority of U.S. commercial shipments of both the domestic and imported PVA was sold to U.S. end users during January 2007-June 2010, with the remainder of the domestic and imported PVA shipped to distributors. The distribution channels are shown by country and period in table II-1a for scope PVA and table II-1b for total PVA (includes both scope and PVB-grade PVA). Based on table II-1a, U.S. producers' U.S. shipments of scope PVA to end users and those used internally averaged approximately *** percent of domestic producers' total U.S. shipments of scope PVA during January 2007-June 2010. U.S. importers' shipments of scope PVA from Taiwan to end users averaged *** percent of total U.S. shipments of the imported Taiwan scope PVA during this period, and U.S. importers' shipments of scope PVA from nonsubject countries to end users averaged *** percent of total U.S. shipments of the imported scope PVA from nonsubject countries. The shares of commercial shipments to end users remained stable for the domestic and imported Taiwan scope PVA during this period, but increased for the imported scope PVA from nonsubject countries.[3] The shares of U.S. shipments of all PVA produced domestically that were sold to end users and used internally (table II-1b) were somewhat higher than for such domestic U.S. shipments of scope PVA (tables II-1a), because the PVB-grade PVA included in all PVA was shipped exclusively to end users.

Solutia is a U.S. producer *** of PVA, which it used to produce *** PVB during January 2007-June 2010.[4] In addition, *** PVA for PVB production. In the U.S. market, *** sold about *** percent of *** and *** percent to produce PVB during this period, while ***.[5]

According to Sekisui during the PVA reviews, the vast majority of U.S. purchases of PVA is highly fragmented, with most customers purchasing on average between 100 and 150 tons (200,000-300,000 pounds) of (scope) PVA per year.[6] During the final investigation, however, 17 of the 20 U.S. purchasers that produced downstream products other than PVB reported averaging over 1 million pounds of scope PVA purchases annually during January 2007-June 2010.

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[1] *** together accounted for *** percent of the total quantity of reported imported PVA from Taiwan during January 2007-June 2010. *** reported shipping all of their imported Taiwan PVA to end users, *** reported shipping all of its imported Taiwan PVA to distributors, and *** reported shipping their imported Taiwan PVA to both end users and distributors.

[2] Based on the two forms of PVA discussed in Part II, scope and PVB-grade PVA, all applicable reported imports of PVA from Taiwan *** all applicable reported imports of PVA from nonsubject countries were scope PVA (***). ***.

[3] The increase in the share of shipments to end users of imported scope PVA from all other countries ***. E-mail from ***, December 13, 2010.

[4] ***. Investigation Nos. 731-TA-1014, 1016, 1017 (Review): *Polyvinyl Alcohol from China, Japan, and Korea* (PVA reviews), staff report, confidential version, p. II-1, fn. 1.

[5] Combining reported U.S. producers' U.S. commercial shipments of PVA for *** resulted in all of their U.S. shipments of PVA *** during January 2007-June 2010.

[6] Sekisui/(Celanese) noted that there is "much less buying power across most of the domestic industry than what we see from purchasers like Solutia." PVA reviews, hearing transcript (open session), p. 118 (Purvis), and cited in the staff report, confidential version, p. II-1, fn. 2.

Table II-1a
Scope PVA: Channels of distribution for domestic scope PVA and imported scope PVA from Taiwan and from all other countries sold in the United States (as a share of total U.S. shipment quantities), annually, 2007-09, and January-June 2009/2010

Item	2007	2008	2009	January-June	
				2009	2010
			(*In percent*)		
U.S. producers' U.S. shipments of scope PVA to--					
Distributors	***	***	***	***	***
End users[1]	***	***	***	***	***
Internal consumption	***	***	***	***	***
Total	100.0	100.0	100.0	100.0	100.0
Importers' U.S. shipments of scope PVA from Taiwan to--					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
Total	100.0	100.0	100.0	100.0	100.0
Importers' U.S. shipments of scope PVA from all other countries to--					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
Total	100.0	100.0	100.0	100.0	100.0
Total U.S. shipments of scope PVA to--					
Distributors	***	***	***	***	***
End users[1]	***	***	***	***	***
Internal consumption	***	***	***	***	***
Total	100.0	100.0	100.0	100.0	100.0

[1] ***. E-mail from ***, November 12, 2010; and e-mail from ***, November 12, 2010. U.S. producers' internal consumption is ***. In addition, shipments of scope PVA from Taiwan and all other countries were used to produce products other than PVB.

Note.–Due to rounding, numbers may not add to totals shown.

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

Table II-1b
PVA: Channels of distribution for domestic PVA and imported PVA from Taiwan and from all other countries sold in the United States (as a share of total U.S. shipment quantities), annually, 2007-09, and January-June 2009/2010

Item	2007	2008	2009	January-June 2009	January-June 2010
			(In percent)		
U.S. producers' U.S. shipments of total PVA to--					
Distributors	***	***	***	***	***
End users[1]	***	***	***	***	***
Internal consumption	***	***	***	***	***
Total	100.0	100.0	100.0	100.0	100.0
Importers' U.S. shipments of total PVA from Taiwan to--					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
Total	100.0	100.0	100.0	100.0	100.0
Importers' U.S. shipments of total PVA from all other countries to--					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
Total	100.0	100.0	100.0	100.0	100.0
Total U.S. shipments of total PVA to--					
Distributors	***	***	***	***	***
End users[1]	***	***	***	***	***
Internal consumption	***	***	***	***	***
Total	100.0	100.0	100.0	100.0	100.0

[1] ***. E-mail from ***, November 12, 2010; and e-mail from ***, November 12, 2010. U.S. producers' internal consumption ***. In addition, PVA shipments from all other countries ***.

Note.–Due to rounding, numbers may not add to totals shown.

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

Deliveries to purchasers of scope PVA occur frequently during the year. Twenty-one U.S. purchasers reported in their questionnaire responses during the final investigation the frequency of their deliveries of scope PVA during January 2007-June 2010, which are shown in the following tabulation.

Number of purchasers responding					
Daily	Weekly	Monthly	Quarterly	Annually	Other[1]
2	8	8	-	-	3
[1] This included deliveries on an as-needed basis and deliveries every two months.					

Nineteen of 23 responding purchasers reported in their questionnaire responses that the frequency of their PVA deliveries did not change during January 2007-June 2010, whereas the remaining four purchasers reported some changes. These changes were typically a decrease in delivery frequency due to decreased demand for their downstream products using PVA during this period.

Regional Sales

Two U.S. producers of scope PVA, six U.S. importers of scope PVA from Taiwan, and three U.S. importers of scope PVA from nonsubject countries reported in their questionnaire responses the U.S. geographic market area(s) to which they shipped their domestic and imported scope PVA during 2009. Their responses are shown in the following tabulation.

U.S. geographic areas	U.S.-produced scope PVA	Imported scope PVA from Taiwan	Imported scope PVA from all other countries
	Number of firms responding		
Northeast[1]	***	***	***
Midwest[2]	***	***	***
Southeast[3]	***	***	***
Central Southwest[4]	***	***	***
Mountains[5]	***	***	***
Pacific Coast[6]	***	***	***
Other[7]	***	***	***

[1] Includes CT, ME, MA, NH, NJ, NY, PA, RI, and VT.
[2] Includes IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, and WI.
[3] Includes AL, DE, DC, FL, GA, KY, MD, MS, NC, SC, TN, VA, and WV.
[4] Includes AR, LA, OK, and TX.
[5] Includes AZ, CO, ID, MT, NV, NM, UT, and WY.
[6] Includes CA, OR, and WA.
[7] Includes all other markets in the United States not previously listed, including AK, HI, PR, and VI, among others.

Two U.S. producers of scope PVA and six U.S. importers of scope PVA from Taiwan reported in their questionnaire responses their lead times for delivery of their products and their shipment shares during 2009 that were from U.S. inventory and from production. The weighted-average shipment shares and lead times are shown in the following tabulation.

Shipment source	U.S. scope PVA		Imported scope PVA from Taiwan	
	Share of U.S. shipments (*percent*)	Lead time (*days*)[1]	Share of U.S. shipments (*percent*)	Lead time (*days*)[1]
U.S. inventory	***	***	***	***
U.S. production	***	***	***	***
Taiwan production	***	***	***	***
Other[2]	***	***	***	***
Other[3]	***	***	***	***
Total	100.0		100.0	

[1] Average lead times were rounded to a full day.
[2] An importer, ***, reported that it imported the Taiwan PVA into *** and then exported it to the United States when it received an order from a U.S. customer.
[3] An importer, ***, reported that it imported the Taiwan PVA into *** and then exported it to the United States when it received an order from a U.S. customer.

Information on Suppliers of Scope PVA

U.S. purchasers were requested to provide information in their questionnaire responses on their suppliers of scope PVA during January 2007-June 2010. Their responses are summarized in the following discussion.[3] Purchasers were requested to identify the number of suppliers that they contact in making a purchase of scope PVA. Six purchasers reported contacting anywhere from 1 to 5 suppliers for long-term contracts, two purchasers reported contacting 1 and 2 suppliers, respectively, for short-term contracts, and two purchasers reported contacting 1 and 3 suppliers, respectively, for spot purchases. Fourteen purchasers reported contacting anywhere from 1 to 4 suppliers for purchases of PVA, but did not specify the length/type of purchase agreement. Some purchasers reported for more than a single category of purchases.

Purchasers were requested to indicate if they vary purchases of scope PVA from a given supplier within a specific time period based on the price offered during that period. Of the 23 purchasers responding, 18 indicated no and 5 indicated yes.[4]

Purchasers were asked if they changed suppliers of scope PVA during January 2007-June 2010. Of the 23 firms responding, 16 indicated no and 7 indicated yes. The latter 7 purchasers each reported generally adding one supplier and provided additional comments. *** reported shifting some domestic PVA to that imported from Japan in 2010 due to price, quality, and service. *** added ***, as a second

[3] Twenty-three purchasers reported in their questionnaire responses marketing/pricing knowledge of scope PVA in the U.S. market from at least one country of origin during January 2007-June 2010. All 23 firms reported for U.S.-produced PVA, 18 firms for Taiwan, 6 firms for China, 4 firms for Germany, 1 firm for Japan, and 2 firms for Singapore. *** also provided responses in its purchaser questionnaire and was only familiar with domestic PVB-grade PVA from *** in the U.S. market. However, ***.

[4] One of the 18 firms, ***, reported that less than *** percent of its total volume of purchased PVA was made on price.

supplier to help negotiate better overall pricing. *** reported qualifying PVA imported from Taiwan in 2008. *** reported adding *** as a supplier in 2009, because the domestic producer was the only firm able to supply a specific PVA copolymer resin.[5] *** reported allocating business from its incumbent PVA supplier, ***, to *** in October-December 2008 due to the competitive price and best value that *** then offered. *** reported that ***. *** reported that ***.

Purchasers were asked if they were aware of any new suppliers of scope PVA, either domestic or foreign, during January 2007-June 2010. Twenty of the 23 responding purchasers reported no and 3 reported yes. The new suppliers cited were Kuraray (it formerly sold ***) providing PVA from ***, and International Polymer Services supplying PVA from ***. In addition, *** became aware of PVA imported from Germany, Japan, and Singapore.

Two purchasers that are distributors, ***, reported in their questionnaire responses that they compete with their suppliers for sales of scope PVA.[6] *** identified *** (domestic PVA) and *** (PVA from Germany and Singapore) as its competitors, and *** identified U.S. producers of PVA and importers of PVA from Taiwan as competitors.

U.S. MARKET CHARACTERISTICS

U.S. demand for PVA is derived from demand for the downstream products that use this product as an input. PVA is used in a wide variety of products.[7] High-volume end uses for scope PVA include textiles, paper (coated paperboard), adhesives (packaging, woodworking, bookbinding, and paper converters), and emulsion polymerization (adhesives, coatings, carpet, building and construction materials, and engineered fabrics). Scope PVA is also used in the manufacture of a wide variety of other products including other building materials, biodegradable health-care products, ceramics, and film. A large number of scope PVA products are produced to satisfy the varied demand for this product and some of the PVA products are specialized for a particular use. Demand for scope PVA may also be affected by demand for substitute products and by demand for imports of the downstream products.[8] The levels of U.S. sectoral demand for PVA and the sources of these forms of PVA by country of origin, based on questionnaire responses of U.S. producers and importers, are shown in table II-2 and figure II-1.

U.S. purchasers were asked in their questionnaires if there had been any changes in end uses of PVA during January 2007-June 2010. All 22 responding purchasers reported that there had been no changes in end uses of scope PVA or PVB-grade PVA during January 2007-June 2010.[9]

U.S. producers, importers, and purchasers were requested to identify in their questionnaire responses the principal factors they considered in determining the grade of scope PVA. Reported factors included principally the degree of hydrolysis and viscosity, but also included particle size, presence of any co-monomers, presence of tackifier and/or defoamer, and, for some applications, ash content.

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[5] *** reported that ***.

[6] The third responding distributor/purchaser, ***, reported that it did not compete with its suppliers. *** purchases domestic scope PVA from ***.

[7] *** used to produce PVB, which represents the largest single use of PVA in the United States.

[8] *** reported in their questionnaire responses that there are no substitutes for the PVA used to produce PVB.

[9] *** reported, however, that a new application for PVB involved ***. In addition, *** reported that *** is *** for PVB-grade PVA (***). However, Sekisui asserted at the hearing and in their posthearing brief that ethyl vinyl acetate (EVA) competes with PVA for this application and the cheaper EVA accounts for about 82 percent of the demand for this application (hearing transcript, p. 244, (Gabbert); and petitioner's posthearing brief, Questions from Commissioner Aranoff, pp. 41-42).

Table II-2
PVA: U.S. shipments of domestic producers and imports, by country sources and end uses, 2009

End-use application	United States	Taiwan	All other countries	Total end-use application
	(1,000 pounds)			
Adhesives	***	***	***	20,592
Building materials	***	***	***	7,620
Emulsion polymerization	***	***	***	19,192
Paper	***	***	***	24,193
Pharmaceuticals	***	***	***	835
PVB	***	***	***	***
Textile	***	***	***	11,439
Other	***	***	***	10,346
Unknown	***	***	***	15,616
Total	***	***	7,914	***

Note.–These data were reported for sales to end users and distributors.

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

Figure II-1
PVA: U.S. sectoral demand for PVA during 2009

* * * * * * *

U.S. producers and importers were also requested to report for their U.S. commercial shipments during 2009 the quantity of scope PVA produced in the United States and imported from Taiwan that was standard products and specialty products; the definitions of standard and specialty grades of scope PVA were provided in the questionnaires.[10] The percentage shares of reported 2009 shipments of scope PVA by grades and country of origin are shown in the tabulation on the following page.

[10] The definitions were provided by the petitioner in its response to the draft questionnaires.

Percentage shares of shipments		
Scope PVA grades	United States	Taiwan
Standard[1]	***	***
Specialty[2]	***	***
Total	100.0	100.0

[1] Standard grades of scope PVA are products with a hydrolysis level of 85 percent or higher, and a 4 percent solution viscosity of less than 75cP. This includes multi-component blends of products with these characteristics but excludes any copolymer modified products.

[2] Specialty grades of scope PVA are products with a hydrolysis level lower than 85 percent OR with a 4 percent solution viscosity greater than 75cP OR with any kind of copolymer (either grafted or copolymerized).

U.S. purchasers were also requested to report for their U.S. purchases received during 2009 the quantities of scope PVA produced in the United States, imported from Taiwan, and imported from nonsubject countries that were standard products and specialty products. The percentage shares of reported 2009 purchases by grades and country of origin are shown in the following tabulation.

Percentage shares of purchases			
Scope PVA grades	United States	Taiwan	Nonsubject countries
Standard	***	***	***
Specialty	***	***	***
Total	100.0	100.0	100.0

Purchaser Profiles

The Commission received a total of 24 usable U.S. purchaser questionnaire responses from firms that bought PVA during January 2007-June 2010.[11] Twenty-one of the responding purchasers are end users and the three remaining purchasers are distributors.[12] Reported purchases from 23 of the 24 purchasers totaled 259.1 million pounds of scope PVA during January 2007-June 2010, which accounted for *** percent of U.S. consumption of this form of PVA during this period.[13] The top five responding

[11] Twenty-three of the purchasers bought scope PVA during January 2007-June 2010, while one of these purchasers, ***, also bought limited quantities of low-hydrolysis PVA that was imported from Japan; this latter product was not included in the scope during the preliminary or final investigations and is not included further in this discussion of purchasers. The single remaining firm, ***, was the only purchaser that bought *** during this period. *** PVA from ***. *** reported that *** (e-mail from ***, November 11, 2010).

[12] ***.

[13] *** were the only responding purchasers that also imported scope PVA. *** imported scope PVA from Taiwan and *** imported scope PVA from China and a small quantity of ***. *** U.S. shipments of its imported scope PVA ***, or approximately *** pounds during January 2007-June 2010, while *** U.S. shipments of its imported scope PVA was almost *** pounds during this period. Adding these import shipments to the total reported purchases results in *** pounds of scope PVA accounted for by the responding purchasers during January 2007-June

(continued...)

purchasers of scope PVA among the responding purchasers during 2009, in descending order, were ***.[14] These five purchasers accounted for 28.2 percent of apparent U.S. consumption of scope PVA during January 2007-June 2010.[15]

Solutia purchased ***,[16] to *** PVA. ***. Solutia asserts that ***.[17] Combining all PVA purchases from the 24 responding purchasers results in a total of *** million pounds of all reported PVA purchased during January 2007-June 2010,[18] or *** percent of apparent U.S. consumption of total PVA during this period. The purchaser data do not include U.S. producers' internal consumption of PVA during January 2007-June 2010, which averaged *** percent of U.S. consumption during this period. Reported total purchases (and shipments of ***) together accounted for *** percent of that portion of apparent consumption of total PVA that was represented by merchant-market shipments during this period.

The responding purchasers, their suppliers, and country sources of their purchased PVA are shown in table II-3.

Table II-3
PVA: U.S. purchasers' PVA domestic suppliers and country source(s), January 2007-June 2010

* * * * * * *

U.S. purchasers were asked to describe their firms with respect to uses of their purchases of PVA during January 2007-June 2010. The responses of the 24 purchasers responding to the Commission's questionnaire are summarized in the tabulation on the following page.

[13] (...continued)
2010, or *** percent of total apparent U.S. consumption of scope PVA during this period (this does not include ***).

[14] The top five purchasers do not include ***.

[15] This includes shipments of *** pounds of scope PVA imported by ***.

[16] Solutia purchased *** percent of its total purchases of domestic PVA from ***.

[17] E-mail from ***, November 12, 2010. On the other hand, ***. E-mail from ***, November 12, 2010. Solutia reported during the PVA review investigations that ***. DuPont also reported that ***. PVA reviews, p. II-11, confidential staff report.

[18] This includes import shipments of scope PVA by ***, and *** purchase of ***. ***.

Number of firms	Type of company
7	Adhesive producers (compound adhesives for paper packaging, construction products, polyvinyl acetate, water-based adhesives).
4	Building products producers (industrial plasters, joint compound (setting and ready-mix) textures, mortar).
3	Distributors.
4	Emulsion polymerization producers (adhesives, coatings, engineered fabrics, polyvinyl acetate adhesives, water-based adhesives).
5	Paper producers (solid bleached sulfate (SBS) coated paperboard, specialty paper, tissue paper/towels).
-	Pharmaceutical products producer.
1	PVB producer (PVB film).
2	Textile producers (scrim, textile sizing blends).
3	Other producers (ceramic proppant, packaging-peanut, water soluble films) .
Note.–Some firms reported producing the downstream products in more than one of these categories.	

Although the predominant share of purchases of PVA from U.S. producers and importers is by end users, the responding purchasers differ in terms of relative sizes and mix of U.S.-produced and imported products. Reported purchase quantities of each of the 24 responding purchasers are shown in table II-4.[19]

Table II-4
PVA: Purchases of PVA, by reporting purchasers and country sources, January 2007-June 2010

* * * * * * *

U.S. purchasers were requested to indicate and explain in their questionnaire responses whether they had a multi-country sourcing policy for scope PVA during January 2007-June 2010. Ten of 21 responding purchasers reported having a multi-country sourcing policy, whereas the remaining 11 purchasers reported they had no such policy, even though some of these latter purchasers sourced their PVA requirements from more than one country. The reasons cited for a multi-country sourcing policy included efforts (1) to reduce the risk of supply interruption, (2) to obtain the best possible pricing, (3) to access the most innovative suppliers to stay competitive in the downstream market,[20] and (4) to obtain the quantity of PVA required.

U.S. purchasers were also requested to indicate and explain in their questionnaire responses if they sourced scope PVA from only one country during January 2007-June 2010. Five responding firms indicated purchasing scope PVA from a single country and cited as the principal reason exclusive supply agreements.

[19] Total purchases also include U.S. shipments of direct imports of scope PVA by ***; both are distributors and the only responding purchasers that also imported scope PVA directly. ***.

[20] ***.

U.S. purchasers were also requested to indicate if their relative purchase patterns for PVA that was produced domestically, imported from Taiwan, and imported from nonsubject countries changed since 2007. Nineteen purchasers responded and some firms reported for more than a single country source. Their responses by country of origin and by type of change are shown in the tabulation below.

Number of purchasers responding				
Country of origin	**Increased**	**Decreased**	**Fluctuated**	**No change**
United States	2	6	7	4
Taiwan	3	3	5	1
All other countries	1	3	3	2
Total	6	12	15	7

As can be seen in the tabulation, purchases generally "fluctuated" or "decreased", reportedly due principally to changes in demand for the downstream product and/or a lack of availability of PVA.[21] "Increased" purchases reportedly were due to a change in suppliers or an increase in demand for the downstream product. "No changes" were reportedly based on constant relative purchases.

SUPPLY AND DEMAND CONSIDERATIONS[22]

U.S. Supply[23]

U.S. Production

Based on available information, the two U.S. producers of scope PVA (DuPont and Sekisui) and the *** U.S. producers of PVB-grade PVA (***) may have had the ability to respond moderately to changes in U.S. demand with changes in the quantity of shipments of U.S.-produced PVA to the U.S. market during January 2007-June 2010. The main contributing factors to the moderate degree of responsiveness of supply are the existence of some unused capacity (mostly that of ***), alternate markets, and moderate inventories. However, such supply responsiveness may be constrained by forces such as weather and interrupted VAM production that disrupted/affected U.S. production of scope PVA and PVB-grade PVA during parts of the period, and by an inability to produce the specific scope PVA products for which demand increased. Factors contributing to this degree of responsiveness are discussed below.

[21] ***.

[22] Short-run effects discussed in the supply and demand sections refer to changes that could occur within 12 months, unless otherwise indicated.

[23] Data on U.S. PVA production, production capacity, capacity utilization, inventories, and exports are shown in detail in Part III.

Industry capacity[24]

Based on the two U.S. producers' reported decreasing domestic capacity and decreasing production of scope PVA during 2007-09, reported annual capacity utilization for scope PVA decreased from *** percent in 2007 to *** percent in 2009. Reported capacity utilization increased *** during January-June 2010, to *** percent from *** percent during the same period in 2009, as capacity decreased and production of scope PVA increased in the 2010 interim period. Capacity utilization for PVB-grade PVA followed the same trends, but *** of capacity utilization, *** throughout the period.[25] [26] The reported levels of capacity utilization indicate that *** may have had *** with which they could have increased production of scope PVA and PVB-grade PVA in the short run in the event of an increase in demand during January 2007-June 2010.[27]

The two U.S. producers of scope PVA, DuPont and Sekisui, were requested in their questionnaire responses to report fixed and variable costs as an average of 2009 total production costs for scope PVA. DuPont reported a fixed cost share of *** percent and Sekisui reported a fixed cost share of *** percent, while their reported variable cost shares were *** percent and *** percent, respectively. Significant fixed costs suggest that low output levels could lead to increased unit costs. Although the two firms had *** capacity utilization rates for their production of scope PVA during January 2007-June 2010, *** U.S. producer of scope PVA, could have experienced *** impact on its unit costs from fluctuations in its capacity utilization rates *** U.S. producer of scope PVA.

Inventory levels

The combined end-of-period scope PVA inventory quantities reported by the two U.S. producers increased irregularly as a share of total shipments during 2007-09 and this share decreased somewhat during January-June 2010. End-of-period inventories ranged from a *** of *** percent of total shipments in 2007 to a *** of *** percent during 2007.[28] Therefore, both *** may have had an ability to use their inventories to increase shipments of their scope PVA to the U.S. market and/or to increase internal transfers during January 2007-June 2010 for *** and ***. For PVB-grade PVA, U.S. producers *** had a *** to increase shipments from inventory (***) or increase production of this form of PVA (***) to meet ***. The flexibility to use inventories to respond to price changes in the short run may be restrained to the extent that the U.S. producers' inventories consist of products that are not suitable for end uses that experienced the increased demand, or consist of products already committed to customers in the U.S. market.

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[24] *** the production of PVB grade of PVA requires a number of additional steps in processing and has more costs associated with the added steps. In addition, ***. As a result, industry capacity and capacity utilization of scope PVA and PVB-grade PVA may change as relative production levels of the two forms of PVA change, and may change for scope PVA where relative production levels of more or less specialized products change. As an example, depending on the relative price and/or quantity demanded for PVB, ***.

[25] ***. U.S. capacity utilization for total PVA decreased from *** percent in 2007 to *** percent in 2009, but increased *** to *** percent during January-June 2010 from the same period in 2009; production capacity for total PVA increased *** in 2008 and ***.

[26] Sekisui reported that, "***;" its reported capacity utilization rate for PVA was *** during this period (petitioner's posthearing brief, Questions from Commissioner Aranoff, pp. 42-43). The firm responded during the PVA preliminary-phase investigation that it needed to operate its PVA facilities at *** percent capacity utilization (effective full capacity) to achieve acceptable economies-of-scale benefits in producing PVA (Ibid.).

[27] *** capacity utilization for PVB-grade PVA was typically *** percent during the period.

[28] Inventories of PVB-grade PVA were typically *** inventories of scope PVA during January 2007-June 2010.

Alternate markets

U.S. producers' exports of scope PVA averaged *** percent of their total shipments of scope PVA during January 2007-June 2010, whereas exports of PVB-grade PVA (applies only to ***) averaged *** percent of total shipments of this form of PVA during this period. These levels of exports indicate that domestic producers may have the ability to shift shipments of PVA to the U.S. market from other markets.[29] *** reported in its producer questionnaire responses that its principal export markets for its scope PVA were ***. *** reported that its principal export markets for its scope PVA were *** and for its PVB-grade PVA was ***. Both DuPont and Sekisui reported that the PVA products that they export are the same as their domestic PVA products sold in the U.S. market.[30]

During the PVA reviews, U.S. producers reported in their questionnaire responses on their ability to shift sales of scope PVA between the U.S. market and alternative country markets. *** responded and based on those responses indicated that any further shifting from the U.S. market to export markets may be more difficult than shifting to the U.S. market.[31]

Production alternatives

*** reported in its questionnaire response that it *** switch production between scope PVA and PVB-grade PVA in response to a relative change in the prices of these PVA forms using the same equipment or machinery and/or production employees that were used to produce scope PVA. In addition, depending on the relative price and or quantity demanded for VAM, *** may be able to substitute between production of VAM and downstream production of PVA.

Supply disruptions

U.S. producers and purchasers were asked to discuss in their questionnaire responses any supply problems for U.S.-produced PVA that occurred since January 1, 2007. The three U.S. producers and 22 purchasers responded. Twelve of the 22 responding purchasers of scope PVA reported no supply disruptions (11 of these 12 purchased domestic PVA), whereas the 10 remaining firms reported experiencing supply disruptions from Sekisui.[32]

*** reported being unable to meet contractual commitments or shipments during certain periods since January 1, 2007.[33] *** reported that during the period of investigation *** and there were also times when it had ***. *** reported that ***. According to DuPont, ***.

*** reported that its PVA customers were ***. According to Sekisui, ***. Sekisui noted that for the most part ***. Sekisui noted that it ***.[34] In addition, Sekisui reported that ***.

During the PVA reviews, Solutia provided very detailed information on the supply problems that it had in getting PVA from ***. Solutia reported that during 2007-08, it experienced problems with PVB-grade PVA supply from *** as a consequence of production problems including: (1) *** were not shipping *** the volumes it requested and had under contract; (2) not shipping volumes in a timely

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[29] This ability to shift shipments between the domestic and export markets may be constrained where the PVA is already committed to customers in the export markets.

[30] PVA reviews, hearing transcript (open session), pp. 70-71 (Korte and Purvis), and cited in the staff report, confidential version, pp. II-7-8.

[31] PVA reviews, confidential staff report, p. II-8. The firms indicated that ***.

[32] All of the purchasers' reported supply disruptions with *** were associated with the domestic producers' ***.

[33] ***. In addition, *** reported ***.

[34] ***.

fashion; (3) not shipping the quality agreed under contract; (4) *** on contracted volumes during this period for *** material; (5) *** forcing *** to accept a change in specification (lowering the quality) during contract negotiations for *** volume;[35] and (6) ***, and subsequently putting *** on *** percent allocation until further notice. *** placed customers on allocation in *** by ***, and put *** on allocation. In May 2007, *** lowered the allocation for ***. *** subsequently lowered the allocation to *** percent and ***.

Imported PVA from Taiwan[36]

Based on available information, the lone producer of PVA in Taiwan, Chang Chun, had at least a moderate ability to respond to changes in the price of scope PVA with changes in the quantity of shipments of the Taiwan scope PVA to the U.S. market during January 2007-June 2010; this supply flexibility appears likely to continue into the future. The main factors contributing to this degree of responsiveness were ***.

Industry capacity

Chang Chun reported that capacity utilization rates to produce scope PVA decreased from *** percent in 2007 to *** percent in 2009 and then increased to *** percent during January-June 2010 from the level during January-June 2009.[37] Capacity utilization rates were projected to remain at *** percent for all of 2010 and *** to *** percent in 2011. These data indicate that there was *** capacity for Chang Chun to expand production of scope PVA for sale in the U.S. market during January 2007-June 2010, and this *** is expected to continue for the full year 2010 and for 2011.

Inventory levels

Chang Chun reported that its end-of-period inventories of scope PVA in Taiwan as a share of its total shipments of scope PVA increased irregularly from *** percent in 2007 to *** percent in 2009 and then decreased to *** precent during January-June 2010 from the level during January-June 2009.[38] These data indicate that Chang Chun may have had at least a moderate ability to use its Taiwan inventory of scope PVA to increase shipments of scope PVA to the U.S. market during January 2007-June 2010. Chang Chun reported projected inventory levels of scope PVA in Taiwan for 2010 and 2011 that are *** the level during January-June 2010.

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[35] Solutia reported that ***. PVA reviews, Solutia's posthearing brief, pp. A2-A3, and cited in the staff report, confidential version, p. II-11.

On this issue, *** reported that in ***. *** in an effort to be helpful to Solutia, *** offered ***. DuPont noted that, at that time, since Solutia ***, DuPont then ***. This ***. PVA reviews, DuPont/Celanese's posthearing brief, Part II: Answers to Commission Questions, pp. 42-45, and cited in the staff report, confidential version,
p. II-11.

[36] Chang Chun reported for only scope PVA.

[37] According to ***, it *** (PVA reviews, Solutia's posthearing brief, p. 7, and cited in the staff report, confidential version, pp. II-32 and II-34). Any such production would result in capacity and capacity utilization figures for production of scope PVA and PVB-grade PVA that could fluctuate with changes in demand and/or relative prices of these two forms of PVA.

[38] Chang Chun's average end-of-period inventory levels of scope PVA equaled almost *** percent of its average annual shipments of scope PVA to the United States during January 2007-June 2010.

U.S. importers' end-of-period inventories of the Taiwan scope PVA in the U.S. market during January 2007-June 2010 ranged from *** percent of total U.S. shipments of such imports in 2007 to *** percent in 2008, decreased to *** percent in 2009, and declined further to *** percent during January-June 2010. These data indicate that U.S. importers may have an ability to use inventories as a means to increase shipments of the Taiwan scope PVA in the U.S. market in the short run.

The flexibility to use inventories to respond to price changes in the short run may be restrained to the extent that Chang Chun's and U.S. importers' inventories consist of products that are not suitable for end uses that experienced increased U.S. demand, or consist of products already committed to customers.

Alternate markets

Chang Chun sold its scope PVA principally to *** markets, secondarily to *** market, thirdly to the *** market, and the remainder was used for internal consumption during January 2007-June 2010; this shipment pattern was projected to *** for the full year 2010 and in 2011.[39] These data indicate that Chang Chun may have had the flexibility to shift shipments of scope PVA from/to alternate markets to increase/decrease shipments to the U.S. market in response to price changes in the United States during January 2007-June 2010. This flexibility may be restrained to the extent that Chang Chun's sales of scope PVA in its home market and exported to third-country markets were not used/acceptable in the U.S. market. In addition, any binding supply agreements longer than 12 months that Chang Chun may have with customers would also reduce Chang Chun's ability to shift PVA sales among home, third-country, and U.S. markets in the short term.

Production alternatives

Chang Chun reported producing *** scope PVA, although *** had reported that ***.[40] Any *** of the Taiwan producer to shift production between PVA and other products would *** its supply responsiveness in the short run.

Supply disruptions

U.S. importers and purchasers were asked to discuss any supply problems for imported scope PVA from Taiwan that occurred since January 1, 2007.[41] Two of five U.S. importers and none of the 22 responding purchasers reported supply disruptions of the imported scope PVA from Taiwan. Both importers (***) reported late shipments from Chang Chun. *** reported that the supply disruptions occurred during the third quarter of 2007 through the first quarter of 2008 and *** reported unavailability of product in October 2007. *** reported during the PVA reviews that "***."[42] ***.

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[39] During January 2007-June 2010, Chang Chun's sales of scope PVA to third-country markets averaged *** percent of its total shipment quantities of scope PVA; shipments in its home market averaged *** percent of the total; exports to the U.S. market averaged *** percent of the total, and internal consumption accounted for the remaining *** percent.

[40] PVA reviews, Solutia's posthearing brief, p. 7, and cited in the staff report, confidential version, pp. II-32 and II-34.

[41] These firms were asked the same question regarding PVB-grade PVA, but these firms reported that they did not import or purchase this form of PVA from Taiwan during January 2007-June 2010.

[42] PVA reviews, confidential staff report, pp. II-18-19. *** (Ibid.).

Imported PVA From Nonsubject Countries

Based on import quantities reported by Commerce for HTS subheading 3905.30.00, a total of 22 countries exported PVA (***) to the United States for at least some periods during January 2007-June 2010, with the 21 nonsubject countries accounting for 49.4 percent of the total quantity of these imports during this period. The top four nonsubject countries in decreasing order were Japan, Germany, China, and Singapore, which together accounted for 39.7 percent of the total quantity of PVA imports, and, with Taiwan, collectively accounted for 90.4 percent of the total quantity of these imports. U.S. imports of certain PVA from China, Japan, and Korea have been subject to U.S. antidumping duties since approximately mid-2003.

U.S. purchasers were requested to report in their questionnaire responses any supply disruptions from their PVA suppliers during January 2007-June 2010. Two of the 22 responding purchasers reported tight supply problems with the German PVA provided by *** during late 2008 through early 2009 and during May-December 2010. Eleven other firms reported no supply disruptions and 10 firms (one of whom also reported for the German PVA) identified supply disruptions with the domestic product.

U.S. Demand

Demand for total PVA, as measured by the quantity of apparent U.S. consumption, decreased by a total of *** percent during 2007-09, and then increased during January-June 2010 by *** percent from the level in January-June 2009.[43]

Business Cycles

Based on questionnaire responses of U.S. producers, importers, and purchasers, U.S. demand for PVA is affected by changes in overall U.S. economic activity, some seasonality, and, as an intermediate product, is derived from demand in the sectors in which it is used.[44] Scope PVA is used in the textile and paper industries in sizing formulations, as a binder in adhesive and soil formulations; and as an emulsion or polymerization aid in colloidal suspensions, water-soluble films, cosmetics, construction materials, and joint compounds.[45] The decline and weak recovery of the general economy[46] and declines and continued weakness in broad market sectors, such as construction and textiles,[47] have reduced PVA demand.

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[43] Trends in apparent U.S. consumption for scope PVA and PVB-grade PVA were similar to those of total PVA, although the magnitude of the trends differed for the two forms of PVA. Apparent U.S. consumption of scope PVA decreased during 2007-09, by *** percent, and then increased during January-June 2010 by *** percent from the level in January-June 2009. Apparent U.S. consumption of PVB-grade PVA decreased during 2007-09, by *** percent, and then increased by *** percent during January-June 2010 from the same period in 2009.

[44] U.S. demand for PVA may also be affected by changes in the level of imported downstream products that compete with the U.S.-produced products containing PVA and by competing downstream products in the export market.

[45] In addition, PVB-grade PVA (***) is used exclusively in the production of PVB products, and importantly, used as an adhesive in the manufacture of automotive safety glass and load-resistant architectural glass.

[46] U.S. real GDP increased by 1.9 percent in 2007, exhibited zero growth in 2008, and decreased by 2.6 percent in 2009. Real GDP is estimated to have increased by 2.9 percent in 2010 and is forecast to increase by 3.2 percent in 2011 and 3.3 percent in 2012. *Blue Chip Economic Indicators*, Vol. 36, No. 2, February 10, 2011.

[47] *** reported in their producer questionnaire responses that demand for PVA generally fell during 2007-09 due to the recession and its impact on the sectors using PVA, such as construction, autos, paper, and textiles. *** also reported that several U.S. textile firms have closed production or moved offshore, resulting in continued decline in

(continued...)

Quarterly U.S. real gross domestic product (GDP) is shown in figure II-2, U.S. construction activity is shown in figure II-3, U.S. housing starts are shown in figure II-4, and U.S. producers' shipments of their U.S.-produced paper products and textiles are shown in figure II-5. In addition, U.S. producers' shipments of their U.S.-produced motor vehicles, a major downstream demand sector for PVB-grade PVA, are shown in figure II-6.

The overall economy, as measured by real GDP, fluctuated but fell on a quarterly basis during January 2007-June 2009 before recovering during July 2009-September 2010 (figure II-2). Real GDP first increased from a seasonally adjusted annual rate of $13.09 trillion during January-March 2007 to a period high of $13.36 trillion during October-December 2007, then decreased irregularly to a period low of $12.81 trillion during April-June 2009, before increasing steadily to $13.28 trillion by July-September 2010.[48]

The value of total U.S. construction put in place, on a monthly basis, generally decreased during January 2007-August 2010, before increasing somewhat during September-November 2010 (figure II-3). Total U.S. construction decreased irregularly from a seasonally adjusted annual rate of $1.1 trillion in January 2007 to a period low of $791.5 billion by August 2010, or by 31.2 percent below the initial period value, and then increased somewhat to $810.2 billion by November 2010, or 29.5 percent below the initial-period value. U.S. residential construction decreased on a monthly basis from a seasonally adjusted annual rate of $556.1 billion in January 2007 to $236.4 billion by July 2009, or by 57.5 percent, before fluctuating and ending at $246.8 billion in November 2010, or 55.6 percent below the initial-period value.

Single- and multiple-family housing starts decreased on an annual basis during 2007-09 and then fluctuated on a monthly basis during January-November 2010 (figure II-4).[49] Annual housing starts (single- and multiple-family housing) fell from 1,355,000 units in 2007 to 554,000 units in 2009, or by 59.1 percent. Monthly housing starts on a seasonally adjusted annual rate fluctuated but fell from 629,000 units in January 2010 to 530,000 units in November 2010, or by 15.7 percent.

U.S. producers' shipments of paper products and textiles, on a seasonally-adjusted monthly value basis, fluctuated during January 2007-November 2010, with paper product shipments showing less decline and more robust recovery than the trend for textile shipments (figure II-5). The monthly value of shipments of paper products increased from $14.4 billion in January 2007 to a period high of $15.2 billion by January 2008. Paper products shipments then decreased irregularly to a period low of $13.2 billion by August 2009, before increasing to end the period at $14.3 billion in November 2010, which was only 0.5 percent less than the initial-period value and about 5.9 percent below the period-high value. The monthly value of textile shipments decreased from $3.2 billion in January 2007 to a period low of $2.0 billion by March 2009, and then increased somewhat to end the period at $2.4 billion in November 2010, or 25.5 percent below the initial period value.

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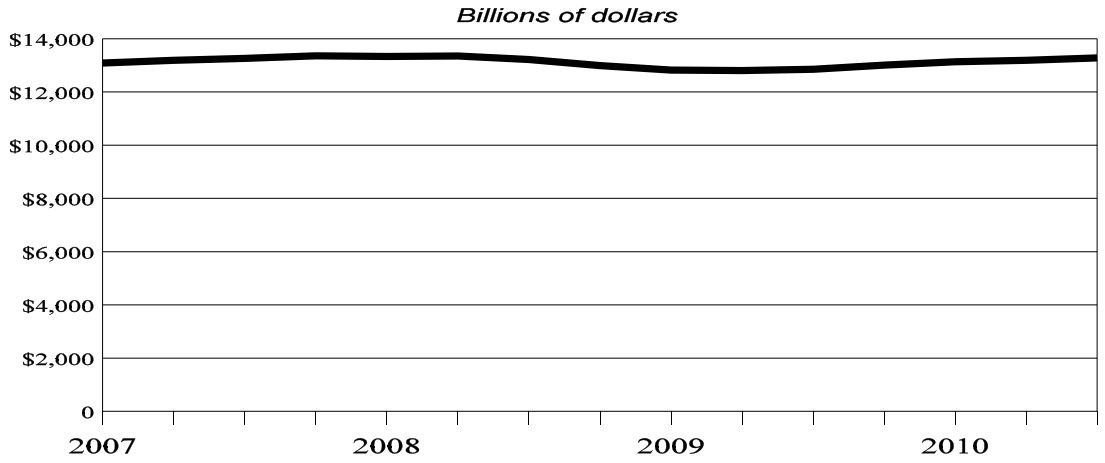
[47] (...continued)
demand for PVA in this sector. In addition, *** indicated that demand for PVA increased as the economy recovered, but it is still not at levels realized during late 2007 and early 2008.

[48] The recent U.S. recession reportedly lasted from December 2007 through June 2009, the longest U.S. recession since World War II, but the recovery since June 2009 has been sluggish and uneven. National Bureau of Economic Research, *U.S. Business Cycle Expansions and Contractions*, http://www.nber.org/cycles/cyclesmain.html, retrieved September 29, 2010; and *NBER Says Recession Ended in June 2009*, http://www.thestreet.com/story/10865728/1/, retrieved September 29, 2010.

[49] Single-family housing accounted for about 75 percent of total housing starts during January 2007-November 2010.

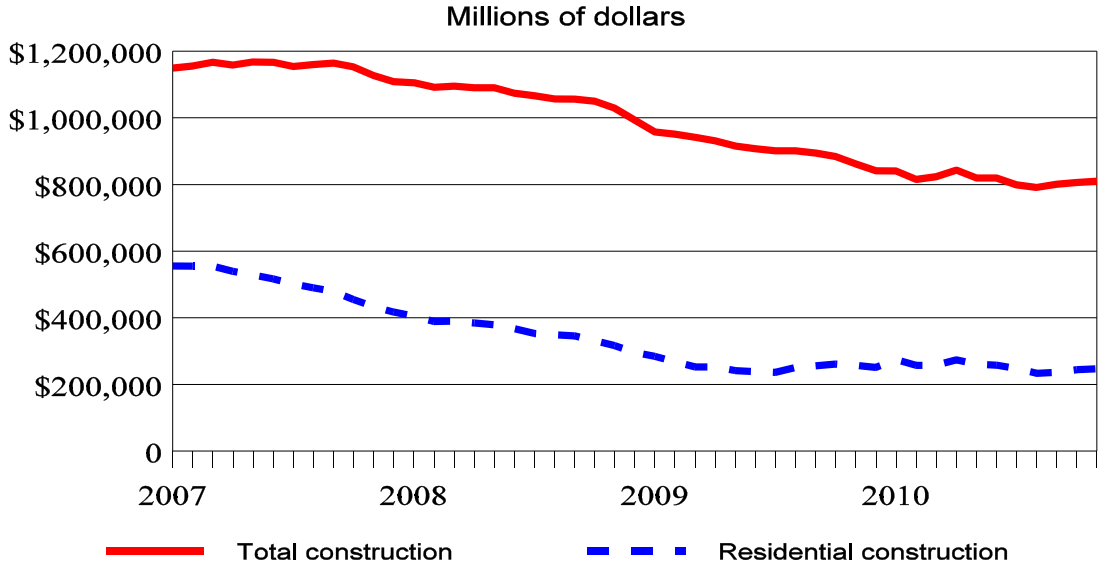
Figure II-2
U.S. real gross domestic product (GDP): Real GDP, by quarters, January 2007-September 2010



Note.–Quarterly values are seasonally adjusted annual rates.

Source: *National Income and Product Accounts–Table 1.1.6, Real Gross Domestic product, Chained Dollars*, Bureau of Economic Analysis, DOC, http://www.bea.gov/national/nipaweb/, retrieved January 14, 2011.

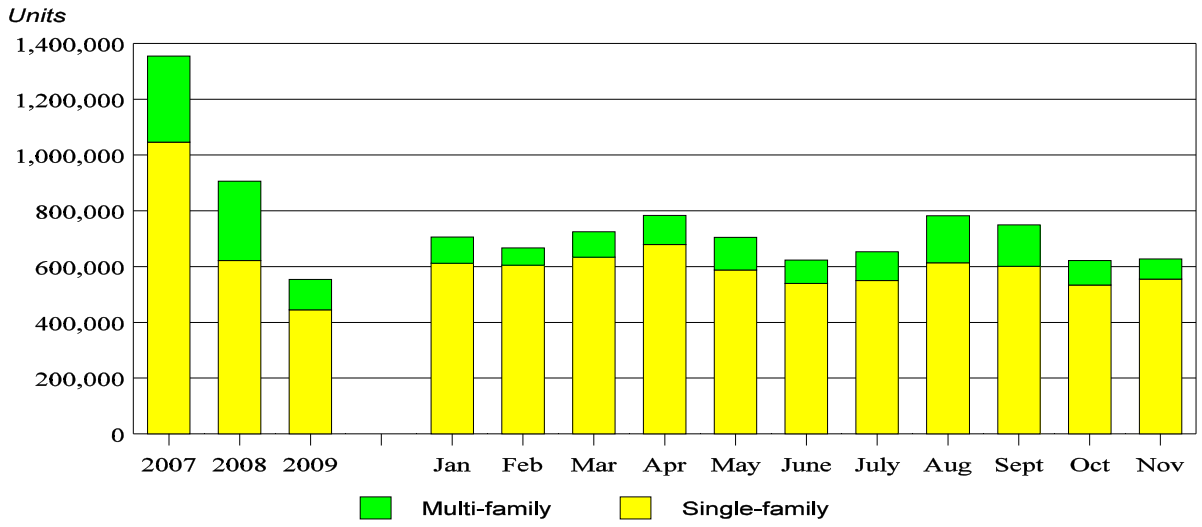
Figure II-3
Value of U.S. construction put in place: Total and residential construction, by months, January 2007-November 2010



Note.--Monthly values are seasonally adjusted annual rates of construction spending.

Source: *Manufacturing, Mining and Construction Statistics, Construction Spending*, U.S. Census Bureau, http://www.census.gov/const/www/c30index.html, retrieved January 14, 2011.

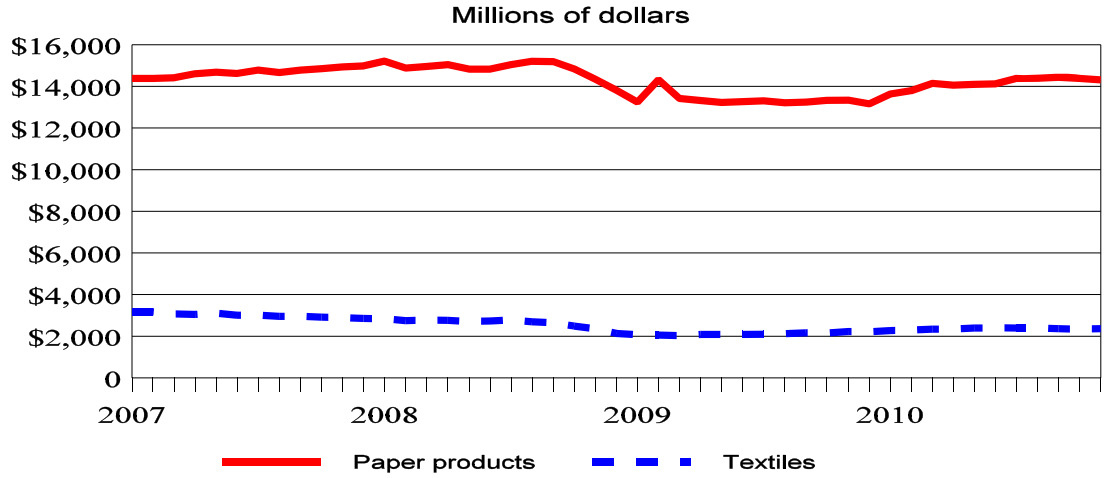
Figure II-4
U.S. housing starts: Number of new housing starts, annually, 2007-09, and monthly, January-November 2010



Note.–Monthly data are seasonally adjusted annual rates of housing starts.

Source: *New Privately-Owned Housing Units Started*, U.S. Census Bureau, http://www.census.gov/const/, retrieved January 13, 2011.

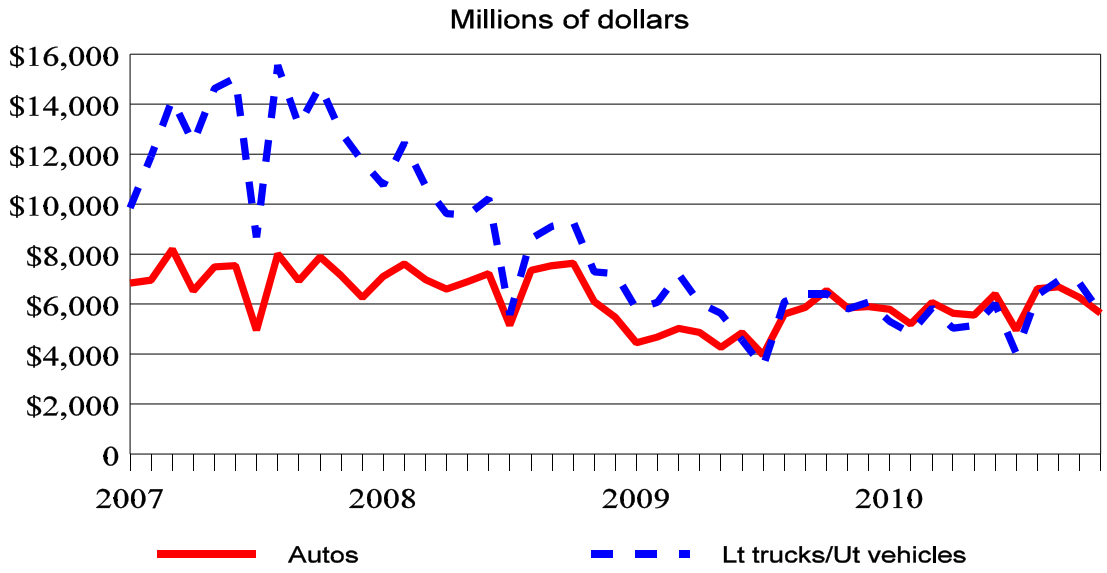
Figure II-5
Value of U.S. producers' shipments of paper products and textiles: Paper products and textile shipments, by months, January 2007-November 2010



Note.--Monthly figures are seasonally adjusted shipment values.

Source: *Manufacturers' Shipments, Inventories, and Orders*, U.S. Census Bureau, http://www.census.gov/manufacturing/m3/historical_data/index.html, retrieved January 14, 2011.

Figure II-6
Value of U.S. producers' shipments of motor vehicles: Shipments of automobiles and light trucks/ utility vehicles, by months, January 2007-November 2010



Note.--Monthly figures are shipment values that are not seasonally adjusted.

Source: *Manufacturers' Shipments, Inventories, and Orders*, U.S. Census Bureau, http://www.census.gov/manufacturing/m3/historical_data/index.html, retrieved January 14, 2011.

U.S. producers' shipment values of motor vehicles, on a monthly value basis (not seasonally adjusted), fluctuated sharply[50] but generally decreased during January 2007-November 2010 (figure II-6). The monthly value of automobile shipments decreased irregularly from $6.8 billion in January 2007 to a period low of almost $4.0 billion by July 2009, then increased to $6.5 billion by October 2009, and then fluctuated but decreased to end the period at $5.6 billion in November 2010, or about 17.7 percent below the initial-period value. The monthly value of shipments of light trucks/utility vehicles increased irregularly from almost $9.9 billion in January 2007 to a period high of $15.6 billion in August 2007, decreased to a period low of almost $3.5 billion by July 2009, then fluctuated but increased to $5.6 billion by November 2010, which was 42.8 percent below the initial-period value and 61.7 percent below the period-high value.

Questionnaire responses concerning cyclical/seasonal U.S. demand for PVA

U.S. producers, importers, and purchasers were requested to indicate in their questionnaire responses whether U.S. demand for scope PVA and for PVB-grade PVA was subject to cyclical/seasonal fluctuations, product cycles, or other U.S. conditions of competition distinctive to PVA during January 2007-June 2010. Three U.S. producers, 8 U.S. importers, and 20 purchasers provided useable responses,

[50] The sharp monthly fluctuations are likely due to a number of factors, including data that was not seasonally adjusted and, for the latter half of 2009, the Consumer Assistance to Recycle and Save (CARS) Act of 2009. This act permitted transactions that occurred during July 1, 2009-November 1, 2009 to qualify for a credit of up to $4,500 towards a trade-in of an older vehicle for a new, more fuel-efficient, vehicle. U.S. Department of Transportation, NHSTA, *Consumer Assistance to Recycle and Save Act of 2009*, http://www.cars.gov/files/official-information/, retrieved September 30, 2010.

with 15 firms reporting no such impacts and the remaining 16 firms reporting such impacts;[51] the latter responses are summarized in the following tabulation (some firms reported for more than a single type of impact).

Types of demand impacts	Number of firms responding		
	U.S. producers	U.S. importers	U.S. purchasers
	U.S. demand for scope PVA		
Cyclical (longer than one year)	***	3	2
Seasonal (within one year)	***	-	6
Product cycle	***	-	-
Other[1]	***	2	-
Total	***	5	8
	U.S. demand for PVB-grade PVA		
Cyclical (longer than one year)	***	***	***
Seasonal (within one year)	***	***	***
Product cycle	***	***	***
Other	***	***	***
Total	***	***	***

[1] Two U.S. importers reported Sekisui/Celanese's force majeure in 2007 as an "other" impact.

Firms reporting that business cycles are a factor in U.S. demand for PVA typically cited the U.S. and global recession that resulted in slowdowns in end-use sectors identified earlier, which led to decreased demand for PVA. *** provided the following additional comments:

> "Demand for U.S. PVA is subject to macroeconomic factors similar to other materials. For example, demand for PVA dropped dramatically during the economic recession towards the end of 2008 and into early 2009, and is now experiencing some recovery. Demand in the latter half of 2009 and into 2010 has improved but it is difficult to predict how much of current demand is a return to sustainable growth as compared to restocking of the value chains of downstream products. It appears that inventory restocking took place during January-June 2010, which accounts for *** increase in sales during that period. Domestic U.S. demand appears to be softening in the current quarter and *** is concerned that ***."

Firms reporting that seasonality is a factor in U.S. demand for PVA generally indicated that the fourth and first quarters were the lowest period of demand, particularly with the building products

[51] ***.

sector,[52] and that demand was higher during the rest of the year. *** provided the following additional comments:

> "Seasonal demand fluctuations primarily influence the purchase quantities of PVA, whereas overall economic conditions had more of an influence on PVA purchase prices. In 2010, the PVA markets have experienced a partial recovery and PVA demand has increased."

Two importers cited Sekisui's 2007 force majeure as an "other" factor affecting U.S. PVA demand. ***, one of these reporting importers, provided the following additional comments:

> "***."

Questionnaire Responses Concerning Changes in U.S. Demand

U.S. producers, importers, and purchasers were requested to indicate in their questionnaire responses whether U.S. demand for scope PVA and for PVB-grade PVA increased, decreased, fluctuated, or did not change during January 2007-June 2010. Three U.S. producers, nine importers, and nine purchasers provided useable responses, which are summarized in the following tabulation.

	Number of firms responding			
	Increase	Decrease	Fluctuate	No change
Types of firms	U.S. demand for scope PVA			
U.S. producers	***	***	***	***
U.S. importers	***	***	***	***
U.S. purchasers	***	3	4	***
Total	1	7	9	2
Types of firms	U.S. demand for PVB-grade PVA			
U.S. producers	***	***	***	***
U.S. importers	***	***	***	***
U.S. purchasers	***	***	***	***
Total	***	***	***	***

The questionnaire responses most frequently indicated that U.S. demand for scope and PVB-grade PVA fluctuated during January 2007-June 2010, followed closely by responses that demand for scope PVA decreased. The firms indicating decreased or fluctuating demand for PVA cited the economic recession and its impact on sectors using PVA, as well as the continued decline in the U.S. textile sector;

[52] Holidays (primarily in the fourth quarter) and adverse weather impact construction and, hence, demand for building products containing PVA such as adhesives, industrial plasters, joint compounds, etc., and demand for architectural glass that contains PVB derived from PVA.

some noted that in 2010, PVA demand has increased modestly, although significant portions of the PVA market are still depressed.[53]

The single firm citing an increase in scope PVA demand, ***, reported that its needs for ***, but it did not know about U.S. demand for all PVA. The firm provided the following additional comments:

"***."

U.S. purchasers were also requested to indicate how demand for their downstream products using PVA changed during January 2007-June 2010 and how any such changes affected their demand for PVA. Of the 19 purchasers responding, 4 reported that downstream demand for their product "increased,"[54] 5 reported that the downstream demand "decreased,"[55] 9 reported that it "fluctuated,"[56] and 2 reported that it was "unchanged."[57] All the responding firms reported that changes in their demand for PVA followed any changes in demand for their downstream products.

***.[58] Chang Chun projected ***,[59] but Sekisui asserted that ***.[60]

Price Responsiveness of Demand[61]

Based on available information, the quantity of U.S. demand for PVA is likely to change at least somewhat in response to changes in price, such that the price elasticity of demand for scope PVA may range from inelastic to somewhat elastic, whereas the price elasticity of demand for PVB-grade PVA appears inelastic. The main factors affecting the responsiveness of demand to price changes are the availability of substitutes and the cost share of PVA in the downstream products. The price responsiveness of demand for PVA, an intermediate product, is also affected by the price responsiveness of demand for products that use PVA as an input, particularly where the PVA cost share is high.[62] The greater the number of substitutes, the higher the cost share, and/or the greater the price responsiveness of demand in the downstream sectors using PVA, the greater the price responsiveness of demand for PVA. It appears that there is a limited range of substitutes and a small cost share of PVA in many of the end-use products. However, in some uses substitutes exist and/or the cost share of PVA is large. The price responsiveness of demand for downstream products using PVA likely varies, as more substitutes probably

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[53] In addition, one of the responding purchasers, ***, reported that ***.

[54] Increased downstream demand included the following products: ***.

[55] Decreased downstream demand included the following products: ***.

[56] Fluctuating downstream demand included the following products: ***.

[57] Unchanged downstream demand included the following products: ***.

[58] Respondents' posthearing brief, response to Vice Chairman Williamson, p. 19 and exhibit 7; and petitioner's posthearing brief, Questions from Vice Chairman Williamson, p. 12.

[59] Chang Chun's *** (respondents' prehearing brief, p. 38). Chang Chun and DuPont also reported *** of two U.S. end users of PVA, *** as additional support for increased U.S. PVA demand (respondents' posthearing brief, p. 15).

[60] Petitioner's posthearing brief, Questions for Vice Chairman Williamson, p. 12.

[61] This impact affects quantity movements along a given demand curve to changes in relative prices.

[62] In addition, the responsiveness of U.S. PVA demand to price changes may be affected by the degree to which end users are able to shift (totally or partially) U.S. production to offshore locations in response to relative price changes of PVA across different countries. Investigation No. 731-TA-1088 (Preliminary): *Polyvinyl Alcohol from Taiwan* (PVA preliminary-phase investigation), conference transcript, p. 49 (Klett).

exist for some building products or ceramic proppant[63] than, for instance, automotive and architectural glass.

Substitutes for PVA

U.S. producers, importers, and purchasers of PVA identified and discussed in their questionnaire responses substitutes for PVA in the U.S. market during January 2007-June 2010, and any changes in substitutes during this period.[64] Two responding U.S. producers, 2 of 8 responding U.S. importers,[65] and 4 of the 21 responding U.S. purchasers identified substitutes for scope PVA, whereas the remaining 5 importers and the remaining 17 purchasers indicated that there were no substitutes for scope PVA.[66] The substitute products and the number of responses identifying the products are shown in the following tabulation.

* * * * * * *

U.S. producers, importers, and purchasers were also asked if any changes in the prices of substitutes affected the prices and/or quantities of scope PVA. Only one firm, ***, responded yes, and identified SBR emulsion polymers, which can substitute for PVA in some paper applications. *** provided the following comments:

"***."

Substitutes Among PVA Products

U.S. producers, importers, and purchasers of PVA were asked to discuss in their questionnaire responses whether substitutes existed among PVA products, particularly among products of differing hydrolysis and viscosity,[67] in the U.S. market during January 2007-June 2010. The two responding U.S. producers, three of nine responding U.S. importers,[68] and 5 of the 20 responding U.S. purchasers reported that substitutes exist among scope PVA products, whereas the remaining firms reported that no such substitution exists. *** provided additional comments. *** stated that--

"***."

*** stated that it could modify the specifications of certain product formulas to accommodate PVA with different levels of hydrolysis. The firm did substitute a different grade of PVA at least once during January 2007-June 2010 when one of its manufacturing facilities experienced difficulties in the production process for ***. However, the firm generally avoids such substitution.

*** provided the following comments:

"***."

[63] Ceramic proppant is used in the process of hydraulic fracturing of rock to retrieve natural gas or oil from sedimentary rock reserves.

[64] U.S. producers, importers, and purchasers reported in their questionnaire responses that there were no changes in substitutes for scope PVA in the U.S. market during January 2007-June 2010.

[65] The two responding producers identifying substitutes for scope PVA ***.

[66] The two responding U.S. producers of ***.

[67] ***.

[68] Two of the three responding importers that indicated such substitution existed were ***.

Cost Share

PVA may account for a small to moderate percentage of the final cost of the wide variety of final products in which it is an input, although for some products and uses it accounts for a larger share. U.S. producers, importers, and purchasers were asked in their questionnaires to provide cost shares of scope PVA and PVB-grade PVA in the end products in which these PVA forms were used during January 2007-June 2010. The 3 U.S. producers, 2 importers, and 20 purchasers reported the requested information, which is summarized by end-use application in table II-5.

Table II-5
PVA: Cost shares of PVA used in downstream products, by end-use category

End-use application	U.S. producers		U.S. importers		U.S. Purchasers	
	Cost share (percentage)	No. of firms	Cost share (percentage)	No. of firms	Cost share (percentage)	No. of firms
Adhesives	***	***	***	***	1.5 - 49.9	8
Building materials	***	***	***	***	1 - 18	4
Emulsion polymerization	***	***	***	***	4.5 - 56.3	5
Paper	***	***	***	***	1 - 26	5
Pharmaceuticals	***	***	***	***	***	***
PVB	***	***	***	***	***	***
Textile	***	***	***	***	***	***
Other:						
Ceramic proppant	***	***	***	***	***	***
Cold-water soluble film	***	***	***	***	***	***
Packing peanuts	***	***	***	***	***	***
PVC	***	***	***	***	***	***

Note.--Some firms responded for more than a single end-use category.

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

Foreign Demand

U.S. producers, importers, and purchasers were asked to indicate in their questionnaire responses whether demand for PVA outside the United States increased, decreased, fluctuated, or remained unchanged during January 2007-June 2010. Two U.S. producers, seven U.S. importers, and six purchasers provided usable responses, which are summarized in the tabulation on the following page.

***, reporting as both an importer and purchaser, indicated that foreign demand for scope PVA increased during January 2007-June 2010. *** reported that the textile industry grew overseas and accounted for this increase in demand for scope PVA. Two firms reported that foreign demand for scope PVA decreased and one of the firms, *** (importer), reported that although foreign demand for scope

Types of firms	Number of firms responding			
	Increase	Decrease	Fluctuate	No change
	Foreign demand for scope PVA			
U.S. producers	***	***	***	***
U.S. importers	1	1	4	1
U.S. purchasers	***	***	***	***
Total	3	2	6	2
Types of firms	Foreign demand for PVB-grade PVA			
U.S. producers	***	***	***	***
U.S. importers	***	***	***	***
U.S. purchasers	***	***	***	***
Total	***	***	***	***

PVA has picked up after the global recession, it is still at a lower level than in 2007. Six firms reported that foreign demand for scope PVA has fluctuated and one of these firms, ***, indicated that, as a result of the economic crisis, global demand for scope PVA fell dramatically during the latter part of 2008 and into early 2009, but should improve if the global recovery continues. *** also reported that Europe remains a mature market for scope PVA demand, while markets in Asia (China and India) and Brazil had been experiencing higher growth rates until the global economic crisis hit. The two firms reporting no change in foreign demand for scope PVA did not provide any comments. ***, reported that foreign demand for PVB-grade PVA has fluctuated for the same reasons that foreign demand for scope PVA fluctuated during January 2007-June 2010.

U.S. producers and importers of PVA were asked in their questionnaires to provide comparisons of prices of scope PVA in the United States with scope PVA prices in Taiwan and in third-country markets during January 2007-June 2010. Two firms, ***, provided responses. According to ***, differences in the concentration of PVA applications tend to result in lower average selling prices in some overseas markets. According to ***, U.S. price levels typically have been high relative to other country markets, and the presence of antidumping duty orders has been important in making this possible.[69]

SUBSTITUTABILITY ISSUES

The degree of substitution in demand between scope PVA produced in the United States and that imported from Taiwan depends upon such factors as relative prices, types of customers, industry standards, qualified status of supplier, conditions of sales (order lead times, payment terms, etc.), purchaser supply requirements, and product differentiation. Product differentiation depends on factors such as the range of products, quality (formulation standards, defect rates, product consistency, etc.), availability, reliability of supply, product services, and the market perception of these latter five factors. Based on the reported information in these investigations, there appears to be a moderate level of substitutability in demand between the scope PVA produced domestically and that imported from Taiwan,

[69] ***.

but some reported product differentiation and other differences may limit the degree of this demand substitution.[70]

***, the three largest suppliers of domestic scope PVA and imported Taiwan scope PVA to the U.S. merchant market, typically sell their scope PVA directly to U.S. end users and generally in the same end-use applications, particularly ***.[71] *** asserted in its producer questionnaire response that Taiwan scope PVA imported by ***, such as ***, competes with ***, which are discussed in detail in Part V. On the other hand, *** reported in its importer questionnaire response that ***. In addition, *** asserted in its importer questionnaire response that, ***.

U.S. producers and importers were asked in their questionnaires if there had been any changes in the product range, product mix, or marketing (including sales over the internet) of scope PVA during January 2007-June 2010. The two responding U.S. producers, ***, and the nine reporting importers (***) reported that there had been no such changes for scope PVA during January 2007-June 2010.

Four responding purchasers reported in their questionnaire responses that they bought U.S.-produced scope PVA during January 2007-June 2010 because of ***,[72] which accounted for 12.1 percent of U.S. producers' U.S. commercial shipments of all PVA during this period. Another 10 responding purchasers reported buying domestic scope PVA as part of their multiple-country sourcing policy so as not to be dependent on a single supplier;[73] these purchases accounted for 25.8 percent of U.S. producers' U.S. commercial shipments of all PVA during this period.[74] In addition, ***.[75] One of the purchasers with a multiple-country sourcing policy, ***, sold substantial volumes of ***.[76] Many of ***.[77]

Competition among PVA suppliers can also be affected by the extent to which they sell to the same customers. Two U.S. producers of PVA and five importers of PVA from Taiwan reported in their questionnaire responses their 10 largest customers for their domestic and/or subject imported scope PVA during 2009 and the shares of the firms' 2009 U.S. commercial shipments of PVA accounted for by each customer.[78] As shown in table II-6, *** of Sekisui's top 10 customers, ***, which ***, also purchased

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[70] This discussion focuses on scope PVA, *** form of PVA imported from Taiwan and *** form imported from nonsubject countries of the two forms of PVA discussed in Part II. As noted earlier, there are no substitutes for PVB-grade PVA ***. As a result, there appears to be no substitutability between the U.S.-produced PVA used to produce PVB and U.S. imports of scope PVA from Taiwan.

[71] Although Sekisui asserted that there exists a wide variety of standard and specialized scope PVA products (petition, p. 21), the majority of scope PVA produced domestically and imported from Taiwan involved standard products. In addition, questionnaire responses of *** reported that *** can substitute for each other in certain end uses.

[72] *** (a more detailed discussion of U.S. producers' supply contracts is provided in Part V).

[73] Such purchases suggest that PVA from different country sources may be, at least partially, complementary.

[74] These 10 purchasers reported purchasing both domestic and imported Taiwan scope PVA. Three of these firms, ***, also reported preferring the domestic scope PVA, whereas 19 other responding purchasers reported that buying U.S.-produced scope PVA was not an important sourcing factor. The three purchasers preferring the domestic scope PVA cited one or more of the following reasons: supply-chain continuity, internal qualification process, lower lead times, ease of bulk deliveries, local technical and product support, access to additional quantities of PVA, and quality/packaging of the domestic product.

[75] *** reported that its customers required the PVB ***; this represented *** percent of the firm's reported purchases of U.S.-produced PVB-grade PVA during January 2007-June 2010.

[76] As indicated earlier in Part II, ***. In addition, *** (see Part V for a detailed discussion of ***).

[77] ***.

[78] *** top 10 U.S. customers for their domestic scope PVA accounted for *** percent and *** percent of their respective U.S. commercial shipments of this form of PVA during 2009. *** top 10 customers for its imported scope PVA from Taiwan accounted for *** percent of its U.S commercial shipments of the imported PVA during

(continued...)

imported Taiwan PVA, ***.[79] Although not shown, *** top U.S. customer for all of its domestic PVA was ***, which accounted for *** percent of *** U.S. commercial shipments of its total domestic PVA during 2009; ***. *** of the top 10 customers reported by the following importers of Taiwan PVA, *** were among *** top 10 customers ***; however, *** sold ***.

Table II-6
Scope PVA: Sekisui's top 10 U.S. customers for its domestic scope PVA during 2009, their percentage share and quantities of Sekisui's 2009 U.S. commercial shipments of its scope PVA, and reported competing quantities from suppliers of imported PVA from Taiwan to these customers during 2009

* * * * * * *

Factors Affecting Purchasing Decisions

Purchasers were asked to identify in their questionnaire responses the three major factors considered by their firms in deciding from whom to purchase PVA during January 2007-June 2010. Twenty-four purchasers provided usable responses, which are shown in table II-7. For scope PVA, availability and price were listed most frequently in the top three; however, availability followed by quality, product meeting company specifications, and pre-arranged contracts were most frequently ranked as the leading factor in selecting a supplier. *** reported the top factors for sourcing PVB-grade PVA, which were, in descending order, ***.

Purchasers were asked to identify in their questionnaire responses the factors that determined the quality of PVA during January 2007-June 2010. Twenty purchasers responded for scope PVA and reported that factors influencing quality included most frequently, hydrolysis and viscosity, but also ash content, volatile organic compound content, pH, particle size, consistency of quality, and performance. *** reported for PVB-grade PVA and identified the top quality factors of ***.

[78] (...continued)
2009. ***, and its top 10 customers for *** accounted for *** percent of its commercial shipments of *** during 2009; ***. *** reported *** customers that accounted for *** its imported Taiwan PVA; *** reported *** customers that accounted for *** its imported Taiwan PVA; and *** reported *** that accounted for *** its imported Taiwan PVA.

[79] ***.

Table II-7
PVA: Most important factors in selecting a supplier, as reported by purchasers

Factor	Scope PVA			PVB-grade PVA		
	First	Second	Third	First	Second	Third
Availability	8	8	2	***	***	***
Price	2	4	12	***	***	***
Product meeting company specifications	3	1	-	***	***	***
Quality	4	4	3	***	***	***
Downstream product performance	2	1	-	***	***	***
Reliability of supply	-	2	-	***	***	***
Pre-arranged contracts	3	2	1	***	***	***
Product range	-	-	2	***	***	***
Service	-	-	1	***	***	***
Other[1]	1	-	1	***	***	***

[1] "Other" includes credit availability.

Note.-- Additional factors identified but unranked by individual firms were "availability" reported by *** and "U.S. origin for NAFTA certification" reported by ***.

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

Purchasers were asked in their questionnaires how often PVA produced domestically, imported from Taiwan, and imported from nonsubject countries met minimum quality specifications during January 2007-June 2010. Twenty-three purchasers responded for scope PVA, but not necessarily for every country listed; the responses are shown in the tabulation below.

Country	Always	Usually	Sometimes	Never
Scope PVA				
United States	15	4	2	1
Taiwan	14	2	-	1
China	4	1	1	1
Germany	2	-	1	-
Japan	-	-	1	-
Singapore	2	-	-	-

As can be seen in the tabulation, PVA from these countries typically "always" or "usually" met purchasers' minimum quality specifications; the only exception was Japan, which reportedly "sometimes" met specifications. Although not shown, *** reported that the domestic PVB-grade PVA that it purchased *** met minimum specifications.

Purchasers were asked in their questionnaire responses to rate the importance of 19 specified factors in their purchasing decisions for PVA and PVB-grade PVA during January 2007-June 2010. Twenty-three purchasers responded for scope PVA and *** reported for PVB-grade PVA (tables II-8a and II-8b, respectively). For scope PVA, factors listed as "very important" by a majority of responding

purchasers were availability (22 firms), product consistency (22 firms), reliability of supply (22 firms), hydrolysis (20 firms), availability of preferred type (20 firms), viscosity (19 firms), delivery time (18 firms), quality meets industry standards (18 firms), and price (16 firms). Factors frequently listed as "not important" include minimum quantity requirements (7 firms) and discounts offered (6 firms). For PVB-grade PVA, *** listed the following factors as "very important:" ***. *** listed the following factors as "not important:" ***.

Purchasers were asked in their questionnaires if they required certification or prequalification with respect to the quality, chemistry, strength, or other performance characteristics of scope PVA during January 2007-June 2010. Sixteen of 22 responding purchasers reported that they require their suppliers to be certified before they will purchase scope PVA from them, with all these firms (end users) indicating that they require it for all their purchases of scope PVA.[80] Purchasers responded that qualification generally takes place over a period of 3-12 months, and costs anywhere from $5,000-$200,000.[81] Factors considered in the qualification of a supplier of scope PVA included bench-scale lab qualification of the PVA, test trial production batches of the commercial product, sending trial production batches to customers for evaluation, then implementing if approved by the customer, or if not approved, making adjustments and repeating the process.

Purchasers were also requested to comment in their questionnaire responses whether any PVA suppliers failed to certify their scope PVA. Sixteen of 18 responding purchasers reported no failures, whereas the remaining 2 purchasers indicated yes. *** reported that "***." *** reported that "***."

[80] The remaining six purchasers, three of whom were distributors and three were end users, did not require their PVA suppliers to be certified, but instead relied on their customers for the PVA or, if end users, their customers of the downstream products, to certify the sources of PVA.

[81] One exception is ***, an end user, that reported its certification process takes *** hours and costs approximately $***.

Table II-8a
Scope PVA: Importance of purchase factors, as reported by U.S. purchasers

Purchase factors	Number of purchasers reporting--		
	Very important	Somewhat important	Not important
Availability	22	1	-
Availability of preferred type	20	2	1
Delivery terms	11	9	3
Delivery time	18	4	1
Discounts offered	5	12	6
Extension of credit	9	12	2
Hydrolysis	20	2	-
Viscosity	19	3	-
Price	16	7	-
Minimum quantity requirements	5	11	7
Packaging	8	10	4
Product consistency	22	1	-
Quality meets industry standards	18	4	1
Quality exceeds industry standards	11	7	5
Product range	8	11	3
Reliability of supply	22	1	-
Supplier prequalification	15	4	2
Technical support/service	5	15	3
U.S. transportation costs	9	11	3

Note.– One purchaser did not report for "supplier prequalification."

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

Table II-8b
PVB-grade PVA: Importance of purchase factors, as reported by *

* * * * * * *

Although not requested during the final investigation, *** reported information about qualification of PVB-grade PVA during the PVA reviews. *** reported that *** attempts to certify or qualify its PVB-grade PVA.[82] ***.[83] ***.[84]

Purchasers were asked in their questionnaires how frequently they made purchase decisions based on the country-of-origin of the scope PVA they purchased, how often they based their purchase decisions on the identity of the manufacturer, and how often their buyers were interested in the country of origin or the manufacturer of the goods they supply. Twenty-three purchasers responded to at least some of these questions, and their responses are shown in the following tabulation. Most of the responding purchasers indicated that they and their customers "never" consider country-of-origin or producer.

Purchaser/customer decision	Always	Usually	Sometimes	Never
Purchaser considers country-of-origin	1	1	3	17
Purchaser considers producer	4	1	3	14
Purchaser's customers interested in the country of origin	-	-	1	12
Purchaser's customers interested in the manufacturer of PVA	-	-	1	12

Purchasers were asked in their questionnaires if they or their customers ever specifically ordered PVA from one country in particular over other possible sources of supply during January 2007-June 2010. Twenty of 23 purchasers responding for scope PVA reported "no" and the 3 remaining firms reported "yes." These latter 3 firms provided some additional comments. *** reported that it "***." *** reported that "***." *** reported that "***." In addition, *** reported for PVB-grade PVA that "***."

Purchasers were asked in their questionnaires if certain grades, forms, or types of PVA were available from a single source during January 2007-June 2010. Seventeen of 21 purchasers reporting for scope PVA reported "no" and the 4 remaining firms responded "yes."[85] These latter 4 firms provided some additional comments. *** reported that modified PVA is only available from Japan. *** reported that DuPont is the only producer of Elvanol 85-82. *** reported that "***." *** indicated that tackified PVA grades are available only from Chang Chun and, during 2007, all grades were available only from Chang Chun (Taiwan). *** reported for PVB-grade PVA and indicated ***.

Purchasers were asked in their questionnaires if they "always," "usually," "sometimes," or "never" purchased the lowest priced scope PVA. Two of the 22 responding purchasers reported "always," 9 reported "usually," 6 reported "sometimes," and 4 reported "never," and a single firm, ***, reported that the question was not applicable because it was obligated under contract to purchase PVA

[82] *** reported that its first requirement for a potential supplier of PVB-grade PVA is that ***. ***. According to ***, U.S. producers of PVB-grade PVA have ***. However, *** noted that most producers elsewhere in the world *** PVB-grade PVA, generally because their products are ***. These potential suppliers produce PVA for local uses, such as vinylon fibers and textile sizing in China. PVA reviews, hearing transcript (open session), pp.140-141 (Berezo) and Solutia's posthearing brief, p. 7, and cited in the staff report, confidential version, pp. II-32 and II-34.

[83] PVA reviews, Solutia's posthearing brief, p. 7, and cited in the staff report, confidential version, pp. II-32 and II-34.

[84] Ibid., p. 7.

[85] One of the seventeen firms, ***, reported that, although different grades of scope PVA are available from multiple sources, the firm is not necessarily able to qualify and use these grades from all sources.

from ***. The 10 firms responding "sometimes" or "never" provided explanations including exclusive contract agreements, availability concerns, NAFTA certification requirements, spot purchases, and quality concerns.

Fourteen purchasers reported in their questionnaire responses that they had purchased scope PVA from a certain source when a comparable product was available at a lower price. Reasons given include quality of supply; availability of specialized products; reliability of supply; consistency; maintaining a purchasing relationship with multiple suppliers without being dependent on only one vendor because market disruptions can occur at anytime; the cost of changing suppliers outweighed the benefit due to a slightly lower price; and the inability to buy scope PVA on a spot basis and hence the need to cover 100 percent of needs under contract because of the requirement of qualified suppliers.

Comparison of the U.S.-Produced and Imported PVA

U.S. producers, importers, and purchasers were asked in their questionnaires whether scope PVA produced domestically, imported from Taiwan, and imported from nonsubject countries can "always," "frequently," "sometimes," or "never" be used interchangeably in the U.S. market during January 2007-June 2010. The firms were asked the same question regarding PVB-grade PVA. Responses for scope PVA are shown in table II-9. Two U.S. producers, eight U.S. importers, and 22 purchasers provided useable responses, but not necessarily for every country comparison. As shown in table II-9, U.S. producers were split regarding interchangeability between scope PVA produced domestically, imported from Taiwan, and imported from nonsubject countries.

Firms that reported that scope PVA from different sources was "sometimes" or "never" interchangeable were asked to explain the factors that limit or preclude interchangeable use. The following six purchasers provided useable responses. *** reported that the cost to formulate different sources of PVA limits interchangeability. *** reported that it did not get the same adhesion properties with the domestic PVA that it does with the Chinese and Taiwan PVA. *** indicated that the degree of interchangeability is determined by individual adhesive products and their application. *** reported that samples of PVA from Taiwan and India failed their lab testing. *** indicated that interchangeability is limited by different manufacturing processes and resulting PVA properties. *** reported that, compared with domestic PVA, the Chinese products offer limited grades and have inferior quality for specific applications.

Although not shown in a table, two U.S. producers, ***, provided responses regarding interchangeability of U.S.-produced and foreign-produced PVB-grade PVA. Because there has been ***, their responses do not reflect interchangeability in the U.S. market, but possibly interchangeability in foreign markets. Responses of both firms indicated that ***, although *** reported that ***. *** reported that, given the tightness of specifications for PVB-grade PVA, interchangeability is limited due to a lengthy qualification process. *** reported that ***.[86] In addition, *** reported that ***.[87] *** reported that ***.[88]

[86] E-mail from ***, November 11, 2010.

[87] E-mail from ***, November 8, 2010.

[88] Ibid.

Table II-9
Scope PVA: Perceived interchangeability in the U.S. market between scope PVA produced in the United States, imported from Taiwan, and imported from nonsubject countries, by country pairs

	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of U.S. purchasers reporting			
Country pair	**A**	**F**	**S**	**N**	**A**	**F**	**S**	**N**	**A**	**F**	**S**	**N**
U.S. vs. subject countries:												
U.S. vs. Taiwan	***	***	***	***	1	6	1	-	11	4	2	1
U.S. vs. nonsubject countries:												
U.S. vs. China	***	***	***	***	-	2	3	-	-	3	6	2
U.S. vs. Germany	***	***	***	***	1	3	2	-	2	4	2	1
U.S. vs. Japan	***	***	***	***	-	-	-	1	-	-	-	-
U.S. vs. Singapore	***	***	***	***	1	4	1	-	3	3	-	1
Taiwan vs nonsubject countries:												
Taiwan vs. China	***	***	***	***	-	1	3	-	-	3	4	-
Taiwan vs. Germany	***	***	***	***	1	2	2	-	2	2	2	-
Taiwan vs. Japan	***	***	***	***	-	-	-	1	-	-	-	-
Taiwan vs. Singapore	***	***	***	***	1	3	1	-	3	1	1	-
Nonsubject country comparisons:												
China vs. Germany	***	***	***	***	-	-	3	-	-	1	3	-
China vs. Japan	***	***	***	***	-	-	-	1	-	-	-	-
China vs. Singapore	***	***	***	***	-	1	2	-	-	1	3	-
Germany vs. Japan	***	***	***	***	-	-	-	1	1	2	2	-
Germany vs. Singapore	***	***	***	***	1	1	1	-	-	-	-	-
Singapore vs. Japan	***	***	***	***	-	-	-	1	-	-	-	-

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

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

U.S. purchasers were also requested in their questionnaires to make country-of-origin comparisons between the U.S.-produced and imported scope PVA for the specified purchase factors discussed earlier (table II-8a) during January 2007-June 2010 and to indicate for each factor whether product from one country was "superior," "comparable," or "inferior" to product from another country. The same request was made for PVB-grade PVA.[89] Seventeen purchasers provided useable responses, but not necessarily for every country comparison or every purchase factor. Comparisons reported by the responding purchasers for scope PVA are shown in table II-10.

[89] As noted earlier, *** comparisons were not possible in the U.S. market.

Table II-10
Scope PVA: Purchasers' comparisons between domestic and imported products and between imported products from Taiwan and nonsubject countries

Factor	U.S. versus-												Taiwan versus-					
	Taiwan[1]			China[2]			Germany[3]			Singapore			China[4]			Singapore		
	S	C	I	S	C	I	S	C	I	S	C	I	S	C	I	S	C	I
Availability	-	13	2	-	2	2	-	2	-	-	-	1	-	3	-	-	1	-
Availability of preferred type	1	12	2	1	1	2	-	2	-	-	-	1	1	2	-	-	1	-
Delivery terms	-	15	-	-	4	-	-	2	-	-	1	-	1	2	-	-	1	-
Delivery time	3	11	1	-	3	1	1	1	-	-	1	-	2	1	-	1	-	-
Discounts offered	-	14	1	-	4	-	-	2	-	-	1	-	1	2	-	-	1	-
Extension of credit	-	15	-	1	3	-	-	2	-	-	1	-	1	2	-	-	1	-
Hydrolysis	-	15	-	-	4	-	-	2	-	-	1	-	-	3	-	-	1	-
Viscosity	-	15	-	-	3	-	-	1	1	-	1	-	-	3	-	-	1	-
Lower price[5]	1	10	3	-	2	2	-	2	-	-	1	-	1	2	-	-	1	-
Minimum quantity requirements	-	13	2	-	4	-	-	1	1	-	1	-	-	3	-	1	-	-
Packaging	1	14	-	1	3	-	-	2	-	-	1	-	1	2	-	-	1	-
Product consistency	-	15	-	-	4	-	-	2	-	-	1	-	1	2	-	-	1	-
Quality meets industry standards	-	15	-	-	3	-	-	2	-	-	1	-	1	2	-	-	1	-
Quality exceeds industry standards	-	15	-	-	3	-	-	2	-	-	1	-	1	2	-	-	1	-
Product range	-	15	-	-	4	-	-	2	-	-	1	-	1	2	-	1	-	-
Reliability of supply	1	10	4	-	3	1	1	1	-	-	1	-	1	2	-	1	-	-
Supplier prequalification	-	15	-	-	4	-	-	2	-	-	1	-	1	2	-	-	1	-
Technical support/service	1	10	4	-	4	-	-	1	1	-	1	-	1	2	-	1	-	-
Lower U.S. transportation costs[5]	1	11	3	-	4	-	-	2	-	-	1	-	-	3	-	-	1	-

[1] *** also ranked the U.S. product inferior to the Taiwan product based on performance in its adhesives. *** also ranked the U.S. product inferior to the Taiwan product based on innovation/new products and customer-focused attention. *** also ranked the U.S. product comparable to the Taiwan product based on service consistency and particle sizing.

[2] *** also ranked the U.S. product inferior to the Chinese product based on performance in its adhesives. *** also ranked the U.S. product comparable to the Chinese product based on meeting the firm's specifications.

[3] *** also ranked the U.S. product inferior to the German product based on innovation/new products and customer-focused attention.

[4] *** also ranked the Taiwan product comparable to the Chinese product based on performance in its adhesives.

[5] A rating of superior means that the price (or U.S. transportation cost) is generally lower. For example, if a firm reports that "U.S is superior," it rates the U.S. product price (or transportation cost) lower than the price/transportation cost of the imported product.

Note.--S = superior, C = comparable, I = inferior.

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

The majority of responding purchasers indicated that scope PVA produced in the United States was generally comparable to scope PVA imported from Taiwan for the different purchasing factors, although a few purchasers ranked the U.S. product inferior for price (i.e., higher in price), reliability of supply, technical support/service, and lower U.S. transportation costs. Purchasers reported that scope

PVA produced in the United States and imported from China, Germany, and Singapore was generally comparable for the different factors. Purchasers indicated that scope PVA imported from Taiwan was generally comparable to the products imported from China and Singapore for the different factors, although the Taiwan product was rated superior by the few responding firms more frequently compared to the Chinese product than compared to the product from Singapore.

U.S. producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of scope PVA from the United States, imported from Taiwan, and imported from nonsubject countries during January 2007-June 2010. The same request was made for PVB-grade PVA.[90] Two U.S. producers, 6 importers, and 18 purchasers provided useable responses for scope PVA, but not necessarily for every country comparison (table II-11). As shown in table II-11, U.S. *** regarding differences other than price between scope PVA produced domestically versus that imported from Taiwan and nonsubject countries. U.S. importers *** regarding nonprice differences with respect to the U.S. product versus the Taiwan product. Otherwise, U.S. importers reported such differences generally to be "sometimes" or "never" significant, except with respect to the U.S. product versus the Chinese product and the Taiwan product versus the Chinese product. U.S. purchasers reported nonprice factors generally to be "sometimes" or "never" significant regarding the U.S. product versus the Taiwan product, but were fairly split regarding the other country comparisons.

Firms that reported for scope PVA that nonprice factors were "always" or "frequently" a factor in sales were asked to provide an explanation. Previous responses of firms regarding sources of scope PVA that were "sometimes" or "never" interchangeable were also repeated for nonprice factors that were "always" or "frequently" a factor in sales. In addition, five other firms provided comments specific to nonprice factors affecting sales of scope PVA. *** reported that the degree of hydrolysis and viscosity are the main factors. *** reported that the viscosity ranges in the PVA from the United States, Singapore, and Germany are all a little different and cause the firm to make changes in its process when shifting from one supplier to another. *** reported that at times the availability, delivery time, and reliability of supply are different among suppliers of the domestic and imported Taiwan PVA. Of note were the supply disruptions of *** during June 2007-February 2008. *** reported that quality, availability, supply-chain reliability, and run-ability at its plants are important. *** reported that its *** brand and associated customer/technical support provide important distinctions between sales of its *** and PVA imported from Taiwan or other countries and sold by others. In addition, *** ability to provide a full range of PVA grades is important to its customers.

[90] As noted earlier, *** during January 2007-June 2010.

Table II-11
Scope PVA: U.S. firms' perceived significance of differences other than price in the U.S. market between scope PVA produced in the United States, imported from Taiwan, and imported from nonsubject countries, by country pairs

* * * * * * *

ELASTICITY ESTIMATES[91]

U.S. Supply Elasticity

The domestic supply elasticity for U.S.-produced PVA measures the sensitivity of the quantity supplied by the U.S. producer to a change in the U.S. market price of these products. The elasticity of domestic supply depends on several factors including the U.S. producers' level of excess capacity, the ease with which U.S. producers' can alter their productive capacity, the availability of inventories, the availability of alternate markets for domestic PVA, and the ability of producers to shift production between PVA and other products. Analysis of these factors indicates that supply responsiveness is enhanced by possible available capacity, the quantity of inventories on hand, and a large amount of exports, but limited by the presence of long-term contracts and the ability of U.S. producers to produce and/or switch among the numerous PVA products required in the U.S. market. The domestic elasticity of supply is estimated to be in the range of 2 to 4 for scope and PVB-grade PVA combined.[92]

U.S. Demand Elasticity

The U.S. price elasticity of demand for PVA measures the sensitivity of the overall quantity demanded for PVA to changes in the U.S. market price of PVA. The price elasticity of demand depends on factors discussed earlier, such as the existence, availability, and commercial viability of substitute products for PVA, the cost share of PVA in the production of downstream products, and the price responsiveness of the downstream products using PVA. Based on the available information, the demand elasticity is estimated to be in the range of -0.2 to -1.2 for scope and PVB-grade PVA combined; the demand elasticity for PVB-grade PVA appears to be less than that for scope PVA.[93]

Sekisui indicated at the hearing that U.S. PVA demand was price inelastic, and cited the majority of purchasers indicating that there are no substitutes for PVA.[94] In addition to substitutes, the staff considered all the factors that determine the elasticity of demand for PVA, which, as an intermediate product, also include the cost share of PVA in the downstream products and the price responsiveness of demand for products that use PVA as an input, particularly where the PVA cost share is high.[95] Hence,

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[91] The suggested ranges for the various elasticities were presented in the prehearing report for purposes of discussion in the prehearing briefs, hearing testimony, and/or posthearing briefs. Sekisui and the respondents provided comments, which are discussed in this section. The elasticity responses in this section refer to changes that could occur within 12 months, unless otherwise indicated.

[92] Capacity to produce scope PVA can be allocated to produce PVB-grade PVA and vice-versa, depending on relative demand for one type PVA versus the other type. The estimated range of supply elasticity for all PVA accounts for shifting of capacity between the two types of PVA.

[93] The greater the effect of substitutes for these forms of PVA, the closer the elasticity is to the higher end of the range.

[94] Hearing transcript, p. 39 (Lutz).

[95] In addition, the responsiveness of U.S. PVA demand to price changes may be affected by the degree to which end users are able to shift (totally or partially) U.S. production to offshore locations in response to relative price

(continued...)

the greater the number of substitutes, the higher the cost share, and/or the greater the price responsiveness of demand in the downstream sectors using PVA, the greater the price responsiveness of demand for PVA. The staff's estimated range for demand elasticity was based on all of these factors.

Substitution Elasticity[96]

The elasticity of substitution largely depends upon the degree to which there is an overlap of competition between U.S.-produced and imported PVA, which is affected importantly by the extent of product differentiation. Product differentiation, in turn, depends on such factors as physical characteristics (e.g., formulations and quality) and conditions of sale (e.g., delivery lead times, reliability/availability of supply, technical support/service, etc.). Based on available information discussed earlier, the elasticity of substitution between PVA produced domestically and imported from Taiwan is estimated to be in the range of 2 to 4 for scope and PVB-grade PVA combined.[97]

Sekisui indicated in its prehearing brief that the substitution elasticity between the domestic and imported Taiwan PVA was within a range of 6-8, stating that the products are highly substitutable.[98] However, the respondents indicated at the hearing that they agreed with the lower end of the range of the elasticity of substitution suggested by the staff based on the numerous product specifications and end-use applications and different sales factors for PVA.[99]

Sekisui cited as support for the high degree of substitutability the majority of purchasers reporting that the domestic and imported Taiwan PVA are interchangeable[100] and that non-price factors are only sometimes or never significant. In addition, Sekisui noted that the majority of purchasers indicated that the domestic and imported Taiwan PVA are generally comparable for the various purchase factors. However, a number of purchasers indicated that the two sources of PVA are sometimes or never interchangeable and that non-price factors are always or frequently important. An importer, ***, indicated that "although products of the same hydrolysis level can frequently be interchangeable, in the PVC industry this is not without much time, effort, cost, and significant risk so it does not happen easily or quickly." Ten purchasers who indicated in their questionnaire responses that the domestic and imported scope PVA was always or frequently interchangeable reported that they purchased the domestic PVA for one or more of the following reasons: an exclusive long-term supply agreement with Sekisui, as part of their multiple-country sourcing policy, supply-chain continuity, internal qualification process, lower lead times, ease of bulk deliveries, local technical and product support, access to additional quantities of PVA, and/or quality/packaging of the domestic product.[101] In addition, *** disagreed in their questionnaire responses on both interchangeability and non-price factors.

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[95] (...continued)
changes of PVA across different countries. PVA preliminary-phase investigation, conference transcript, p. 49 (Klett). In addition, a U.S. purchaser, ***, reported in its questionnaire response during the final phase that "***."

[96] The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the imports and the U.S. domestic like product to changes in their relative prices. This reflects how easily purchasers switch between the U.S. products and the imported products when their relative prices change.

[97] *** PVB-grade PVA suggests that the substitution elasticity in the U.S. market for this PVA form was apparently zero, but not measurable during January 2007-June 2010.

[98] Sekisui's prehearing brief, p. 17.

[99] Hearing transcript, p. 190 (Boyce).

[100] Although reporting that the products are interchangeable, ***.

[101] These 10 firms' purchases of domestic scope PVA during January 2007-June 2010 accounted for *** percent of domestic producers' total U.S. commercial shipments of scope PVA during this period and *** percent of their total U.S. commercial shipments of all PVA.

Staff has considered the full range of factors affecting substitutability in suggesting a range for the elasticity of substitution, including the share of U.S. producers' commercial shipments of PVA that, based on purchaser questionnaire responses discussed earlier in the section of the report, was preferred by a number of purchasers during January 2007-June 2010, the ***.

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 margin of dumping was presented earlier in this report and information on the volume and pricing of imports of the subject merchandise is presented in Parts IV and 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 two firms that accounted for all known U.S. production of scope PVA during 2009 (DuPont and Sekisui) and on the questionnaire responses of three firms that accounted for all known U.S. production of PVA during 2009 (DuPont, Sekisui, Solutia).

U.S. PRODUCERS

The Commission sent producer questionnaires to the companies identified in the petition.

Sekisui

On September 29, 2000, Celanese AG purchased the polyvinyl alcohol business of Air Products and Chemicals, Inc., including the production facilities located in Calvert City, KY and Pasadena, TX.[1] The Pasadena facility is the newer of the two plants, having been constructed and brought on-line in 1991.[2] On April 6, 2004, an indirect wholly-owned subsidiary of Celanese Corporation (that was also an affiliate of investment banking firm The Blackstone Group) acquired approximately 84 percent of the ordinary shares of Celanese AG.[3] In November 2004, the affiliate reorganized, became a Delaware corporation, and changed its name to Celanese Corporation.[4] In January 2005, Celanese Corporation's initial public offering was completed.[5] On July 1, 2009, Sekisui America Corp. acquired Celanese's polyvinyl alcohol production assets, including the plants in Kentucky and Texas, and renamed the business Sekisui Specialty Chemicals America, LLC.[6] Sekisui manufactures polyvinyl alcohol for the merchant market ***, as discussed below.

DuPont

DuPont is one of the world's largest science companies, operating in more than 80 countries worldwide and offering a wide range of products and services for agriculture, nutrition, electronics, communications, safety and protection, home and construction, transportation, and apparel markets.[7]

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[1] *Polyvinyl Alcohol from China, Japan, and Korea*, Investigation Nos. 731-TA-1014, 1016, and 1017 (Review), Publication 4067 (March 2009), p. I-16.

[2] *Polyvinyl Alcohol from China, Japan, and Taiwan*, Investigation Nos. 731-TA-726, 727, 729 (Final), Publication 2960 (May 1996), p. II-11.

[3] *Polyvinyl Alcohol from China, Japan, and Korea*, Investigation Nos. 731-TA-1014, 1016, and 1017 (Review), Publication 4067 (March 2009), p. I-16.

[4] Ibid.

[5] Ibid.

[6] ***. Sekisui America Corp. is a U.S. subsidiary of Sekisui Chemical Co., Ltd., which is headquartered in Japan. http://www.sekisui-corp.com/profile.html, retrieved on December 15, 2010.

[7] http://www2.dupont.com/Our_Company/en_US/glance/index.html, retrieved on December 15, 2010.

DuPont, which is publicly traded on the New York Stock Exchange, ***.[8] DuPont has been operating its polyvinyl alcohol manufacturing facility in LaPorte, TX since 1972.[9] At this facility it produces only fully hydrolyzed polyvinyl alcohol and internally consumes *** portion to manufacture polyvinyl PVB, as discussed below.

Solutia

In September 1997, a newly formed corporation, Solutia Inc., was spun off from and assumed control over the assets and all of the liabilities of the chemicals business of what was then known as the Monsanto Company.[10] On December 17, 2003, Solutia and its fourteen U.S. subsidiaries filed a voluntary petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code.[11] On November 29, 2007, the U.S. Bankruptcy Court for the Southern District of New York confirmed Solutia's plan of reorganization and approved the company's exit from bankruptcy.[12] On February 28, 2008, Solutia emerged from Chapter 11 reorganization.[13] Today, Solutia, which refers to itself as a global, leading performance materials and specialty chemical company, has three principal business segments – Saflex (manufacturing Saflex® brand PVB sheet and BUTVAR® brand optical grade PVB resin and plasticizer PVB resin products); CPFilms (manufacturing solar control, decorative, safety, and security window films for aftermarket automotive and architectural applications as well as precision-coated films in industries such as electronics and energy); and Technical Specialties (manufacturing and selling chemicals for the rubber, solar energy, process manufacturing, and aviation industries).[14] In the United States, Solutia produces polyvinyl alcohol at its plant located in Springfield, MA which was constructed in 1986.[15] Solutia, which is publicly traded on the New York Stock Exchange, ***.[16] As indicated below, Solutia captively consumes *** of the polyvinyl alcohol that it produces for the production of PVB products.

In addition to producing polyvinyl alcohol in the United States, Sekisui, DuPont, Solutia, and Kuraray are major competitors in the global PVB products market.[17]

Presented in table III-1 is a list of current domestic producers of PVA and each company's position on the petition, production location(s), related and/or affiliated firms, and share of reported production of scope PVA and PVA in 2009.

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[8] ***'s producer questionnaire response.

[9] *Polyvinyl Alcohol from Taiwan*, Investigation No. 731-TA-1088 (Preliminary), Publication 3732 (October 2004), p. III-1.

[10] Solutia Inc. 2009 Annual Report, p. 3, retrieved from Solutia.com on December 14, 2010.

[11] Solutia Inc. 2009 Annual Report, p. 3; *Polyvinyl Alcohol from China, Japan, and Korea*, Investigation Nos. 731-TA-1014, 1016, and 1017 (Review), Publication 4067 (March 2009) at I-16.

[12] *Polyvinyl Alcohol from China, Japan, and Korea*, Investigation Nos. 731-TA-1014, 1016, and 1017 (Review), Publication 4067 (March 2009), p. I-16.

[13] Ibid.

[14] Solutia Inc. 2009 Annual Report, pp. 1, 3-5.

[15] Solutia Inc. 2009 Annual Report at 3; *Polyvinyl Alcohol from China, Japan, and Taiwan*, Investigation Nos. 731-TA-726, 727, and 729 (Final), Publication 2960 (May 1996), p. II-12. Solutia's Trenton, MI facility ***. ***'s producer questionnaire response.

[16] Solutia's producer questionnaire response.

[17] See, e.g., Solutia Inc. 2009 Annual Report, p. 3.

Table III-1
PVA: U.S. producers, positions on the petition, U.S. production locations, related and/or affiliated firms, and shares of 2009 reported U.S. production

Firm	Position on petition	U.S. production location(s)	Related and/or affiliated firms	Share of production of scope PVA (*percent*)	Share of production of PVA (*percent*)
DuPont	***	La Porte, TX	***	***	***
Sekisui[1]	***	Calvert City, KY and Pasadena, TX	***	***	***
Solutia[2]	***	Springfield, MA	***	***	***

[1] ***. ***. ***'s producer questionnaire response.
[2] Solutia produces ***.

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

As discussed in greater detail below, *** directly imports the subject merchandise from Taiwan producer ***, and *** purchases a limited amount of the subject merchandise from U.S. importer ***.

U.S. CAPACITY, PRODUCTION, AND CAPACITY UTILIZATION

U.S. producers' capacity, production, and capacity utilization data for scope PVA and PVA are presented in tables III-2a and III-2b, respectively. U.S. producers' reported capacity for both scope PVA and all PVA was well above apparent U.S. consumption of those products in each year and period.

Table III-2a
Scope PVA: U.S. capacity, production, and capacity utilization, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table III-2b
PVA: U.S. capacity, production, and capacity utilization, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Scope PVA

The fluctuation in capacity for the production of scope PVA occurred because ***. The methodology used by *** is explained in footnote 2 of table III-2a. Production by DuPont and Sekisui combined declined by *** percent between 2007 and 2009, but increased by *** percent in January-June 2010 compared to production in the corresponding period of 2009. Capacity utilization declined *** from 2007 to 2009, but was *** percentage points higher in January-June 2010 than in January-June 2009.

PVA

The increase in capacity for the production of PVA resulted from *** performed by ***. ***'s capacity for the production of PVA remained constant throughout the period for which data were collected. Overall production of PVA declined by *** percent between 2007 and 2009, but was *** percent higher in January-June 2010 than in January-June 2009. Overall capacity utilization declined *** between 2007 and 2009, but was *** percentage points higher in January-June 2010 than in January-June 2009.

U.S. PRODUCERS' SHIPMENTS

Data on U.S. producers' shipments of scope PVA and PVA are presented in tables III-3a and III-3b, respectively. U.S. producers' shipments of scope PVA and PVA consist of commercial U.S. shipments, captive (internally-consumed) U.S. shipments, and exports.

Table III-3a
Scope PVA: U.S. producers' shipments, by types, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table III-3b
PVA: U.S. producers' shipments, by types, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Scope PVA

In 2009, commercial U.S. shipments of scope PVA accounted for *** percent of the volume of U.S. producers' total shipments of scope PVA, captive shipments accounted for *** percent, and exports accounted for *** percent. The volume of U.S. producers' shipments to each of the three categories of shipments decreased between 2007 and 2009. The volumes of U.S. producers' shipments to each of three categories were higher in January-June 2010 than in January-June 2009.

The unit values (*per pound*) of U.S. producers' U.S. commercial shipments, U.S. producers' total U.S. shipments (commercial plus captive), and U.S. producers' total shipments increased irregularly between 2007 and 2009, but were lower in January-June 2010 than in January-June 2009. The unit values of U.S. producers' internal consumption were higher in January-June 2010 than in January-June 2009; the higher unit values in January-June 2010 were driven by *** because ***.

PVA

In 2009, U.S. commercial shipments of PVA accounted for *** percent, internal consumption accounted for *** percent, and export shipments accounted for *** percent of total shipments. The volumes of U.S. producers' shipments to each of these categories were higher in January-June 2010 than in January-June 2009. The unit values of U.S. producers' shipments of PVA to each category increased from 2007 to 2008. Beginning in 2008 and continuing through January-June 2010 the unit values of U.S. producers' commercial and total U.S. shipments of PVA remained relatively constant, whereas the unit values of total shipments decreased. Information on U.S. shipments of scope PVA by hydrolysis ranges is presented in table III-4.

Table III-4
Scope PVA: U.S. shipments by hydrolysis ranges, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

CAPTIVE PRODUCTION

Section 771(7)(C)(iv) of the Act states that–

If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant production of the domestic like product in the merchant market, and the Commission finds that–

(I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product,

(II) the domestic like product is the predominant material input in the production of that downstream article, and

(III) the production of the domestic like product sold in the merchant market is not generally used in the production of that downstream article,

then the Commission, in determining market share and the factors affecting financial performance . . ., shall focus primarily on the merchant market for the domestic like product.[18] [19]

In the preliminary phase investigation, the Petitioner (Celanese) contended that all of the statutory criteria to apply the captive production provision were met. Chang Chun contended that the first and third statutory criteria were not met. The Commission concluded that all elements of the captive production provision were met, and thus focused primarily on the merchant market for the domestic like product in determining market share and the factors affecting financial performance, although it analyzed these factors with respect to the entire U.S. market as well.[20]

The Threshold for the Application of the Statutory Criteria

Scope PVA

Captive consumption (internal shipments) accounted for *** percent of the volume of U.S. producers' U.S. shipments of scope PVA in 2007, *** percent in 2008, *** percent in 2009, *** percent in January-June 2009, and *** percent in January-June 2010. *** of the captive consumption of scope PVA was for the production of ***. Commercial shipments accounted for *** percent of U.S. producers' U.S. shipments in 2007, *** percent in 2008, *** percent in 2009, *** percent of U.S. producers' U.S.

[18] 19 U.S.C. § 1677(7)(C)(iv).

[19] Commission questionnaires collected data on the captive production provision for PVA. Information was received from all three U.S. producers.

[20] *Polyvinyl Alcohol from Taiwan, Inv. No. 731-TA-1088 (Preliminary)*, USITC Publication 3732, October 2004, p. 17.

shipments in January-June 2009, and *** percent in January-June 2010. There were *** transfers to related U.S. firms during the period for which data were collected.

PVA

Captive consumption (internal shipments) accounted for *** percent of the volume of U.S. producers' U.S. shipments of PVA in 2007, *** percent in 2008, *** percent in 2009, *** percent in January-June 2009, and *** percent in January-June 2010.[21] *** of the captive consumption of PVA was for the production of PVB ***, mostly by ***. Commercial shipments accounted for *** percent of U.S. producers' U.S. shipments of PVA in 2007, *** percent in 2008, *** percent in 2009, *** percent in January-June 2009, and *** percent in January-June 2010. There were *** transfers to related U.S. firms during the period for which data were collected.

The First Statutory Criterion

The first requirement for application of the captive production provision is that the domestic like product that is internally transferred for processing into that downstream article not enter the merchant market for the domestic like product. *** captively produce PVA for use in their production of PVB.[22] [23] *** internal transfers of scope PVA entered the merchant market for scope PVA and *** internal transfers of PVA entered the merchant market for PVA.[24]

The Second Statutory Criterion

The second criterion of the captive production provision concerns whether the domestic like product is the predominant material input in the production of the downstream article that is captively produced. With respect to the downstream articles resulting from captive production, PVA reportedly comprises *** percent, *** percent, *** percent, and *** percent of the raw material cost of ***, respectively.[25] [26]

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[21] In 2003, the last full year for which data were collected in the preliminary investigation, captive consumption accounted for *** percent of U.S. producers' U.S. shipments of PVA, and commercial (merchant) shipments accounted for *** percent; the percentages were similar for 2001 and 2002. The Commission determined that the threshold for application of the captive production provision was met. *Polyvinyl Alcohol from Taiwan, Investigation No. 731-TA-1088 (Preliminary)*, USITC Publication 3732, October 2004, p. 15, confidential views of the Commission in the preliminary investigation, p. 22.

[22] In 2009, *** internally consumed *** percent of its U.S. shipments of PVA for the production of PVB, and *** internally consumed *** percent for the production of PVB ***.

[23] In January-June 2009, *** internally consumed *** percent of its U.S. shipments of PVA in the production of ***.

[24] In the preliminary investigation, the Commission determined that the first statutory criterion was met, stating that the record indicated that *** internal transfers by domestic producers were made by *** and that *** of these internal transfers were used in the production of PVB; *** entered the merchant market for PVA. *Polyvinyl Alcohol from Taiwan, Investigation No. 731-TA-1088 (Preliminary)*, USITC Publication 3732, October 2004, p. 16, confidential views of the Commission in the preliminary investigation, p. 22.

[25] ***.

[26] In the preliminary investigation, the Commission determined that the second statutory criterion was met, stating that "*** of the PVA internally consumed by *** was used to produce PVB sheet." It stated that "For ***, PVA accounted for *** percent of the total raw material cost of its downstream PVB sheet product in 2003; no other raw

(continued...)

The Third Statutory Criterion

The third criterion of the captive production provision is that the production of the domestic like product sold in the merchant market is not generally used in the production of the downstream article produced from the domestic like product that is internally transferred for processing (captively produced). For ***, the downstream article that is captively produced from the internally transferred product currently consists of PVB (PVB ***).[27] In the U.S. merchant market, *** sold for use in the production of PVB and also for use in the production of, or as a processing aid in, many other products such as adhesives, paper, and textiles.

In 2009, *** percent (*** pounds) of scope PVA shipped to the U.S. merchant market was for use in the production of *** and *** percent (*** pounds) was for use in the production of other products.[28] In 2009, *** percent (*** pounds) of PVA shipped to the U.S. merchant market was for use in the production of PVB and *** percent (*** pounds) was for use in the production of other products.[29] [30]

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[26] (...continued)
material was responsible for more than *** percent of total raw material costs. For ***, raw material costs in 2003 were *** percent purchased PVA, *** percent internally consumed PVA, and ***." The Commission further explained that "the question arises whether the second statutory criterion is satisfied if, ***, the domestic like product constitutes the largest individual raw material input in a downstream product, but is responsible for *** of total raw material costs. In the last PVA investigation, the Commission construed 'predominant' material input to mean the main or strongest element, and not necessarily a majority, of the individual inputs by value, and we follow the same approach here. Consequently, PVA accounts for a significant percentage of the total raw material costs for PVB – *** – and is unquestionably larger than any other individual input. In these circumstances, we conclude that the secondary statutory criterion is satisfied." *Polyvinyl Alcohol from Taiwan, Investigation No. 731-TA-1088 (Preliminary)*, USITC Publication 3732, October 2004, p. 16, confidential views of the Commission in the preliminary investigation, p. 23.

[27] ***.

[28] In 2007, *** percent (*** pounds) of scope PVA shipped to the U.S. merchant market was for use in the production of *** and *** percent (*** pounds) was for use in the production of other products. In January-June 2010, *** percent (*** pounds) of scope PVA shipped to the U.S. merchant market was for use in the production of *** and *** percent (*** pounds) was for use in the production of other products.

[29] In 2007, *** percent (*** pounds) of PVA shipped to the U.S. merchant market was for use in the production of PVB and *** percent (*** pounds) was for use in the production of other products. In January-June 2010, *** percent (*** pounds) of PVA shipped to the U.S. merchant market was for use in the production of PVB and *** percent (*** pounds) was for use in the production of other products.

[30] In 2003, the last full year for which data were collected in the preliminary investigation, approximately *** percent of U.S. merchant market shipments of PVA were used to produce PVB. The Commission concluded that the third statutory criterion was satisfied, stating that in prior investigations the domestic like product was not "generally" used in the production of the downstream article when even higher percentages of commercial shipments of the domestic like product than the *** percent figure were used to produce the relevant downstream products. *Polyvinyl Alcohol from Taiwan, Investigation No. 731-TA-1088 (Preliminary)*, USITC Publication 3732, October 2004, p. 17, confidential views of the Commission in the preliminary investigation, p. 24.

U.S. PRODUCERS' IMPORTS AND PURCHASES

U.S. producers' imports and purchases of scope PVA are presented in table III-5. ***. ***.

Table III-5
Scope PVA: U.S. producers' imports and purchases, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

U.S. PRODUCERS' INVENTORIES

Tables III-6a and III-6b present end-of-period inventories for scope PVA and PVA, respectively.

Table III-6a
Scope PVA: U.S. producers' end-of-period inventories, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table III-6b
PVA: U.S. producers' end-of-period inventories, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

The U.S. producers' aggregate employment data for scope PVA and PVA are presented in tables III-7a and III-7b, respectively.

Table III-7a
Scope PVA: U.S. producers' employment-related data, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table III-7b
PVA: U.S. producers' employment-related data, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Scope PVA

The number of production related workers ("PRWs") increased in 2008 and then decreased in 2009 to a level *** below that of 2007.[31] There were *** more PRWs during January-June 2010 than in January-June 2009. Hourly wages paid to PRWs declined during the period for which data were collected. Rising productivity and lower wage rates resulted in lower unit labor costs in January-June 2010 than in January-June 2009.

PVA

Decreasing productivity and lower wage rates resulted in increased unit labor costs between 2007 and 2009. Productivity was *** higher and wage rates were *** lower in January-June 2010 than in January-June 2009, resulting in lower unit labor costs.

[31] The fluctuations in the number of PRWs is attributable to *** throughout the period for which data were collected. ***'s producer questionnaire response.

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

U.S. IMPORTERS

Importer questionnaires were sent to 19 firms believed to be importers of PVA, as well as to all U.S. producers of PVA.[1] Usable questionnaire responses were received from 15 companies, representing 107.8 percent of imports from Taiwan in 2009 under HTS subheading 3905.30.00.[2] [3] Table IV-1 lists all responding U.S. importers of PVA from Taiwan and other sources, their locations, and their shares of U.S. imports, in 2009.

Table IV-1
Scope PVA: U.S. importers, sources of imports, U.S. headquarters, and shares of imports in 2009

* * * * * * *

U.S. IMPORTS

Tables IV-2a and IV-2b present data for U.S. imports of scope PVA and PVA, respectively, from Taiwan and all other sources.

Table IV-2a
Scope PVA: U.S. imports, by sources, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table IV-2b
PVA: U.S. imports, by sources, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

[1] The Commission sent questionnaires to those firms identified in the petition, identified in the reviews on polyvinyl alcohol from China, Japan, and Korea, Inv. Nos. 731-TA-1014, 1016, and 1017 (Review), and to firms that, based on a review of data provided by U.S. Customs and Border Protection ("Customs"), may have imported at least one percent or greater of imports under HTS subheading 3905.30.00 in any one year since 2007.

[2] Fifteen firms reported imports of some form of polyvinyl alcohol. *** firms reported imports of only low-hydrolysis polyvinyl alcohol, which is out-of-scope product that entered into the United States under HTS subheading 3905.30.00.

[3] With regard to imports from all other sources, usable questionnaire responses were received from 15 firms representing the vast majority (***) percent of imports from all other sources in 2009 under HTS subheading 3905.30.00. The coverage estimate includes data reported by firms for imports of low-hydrolysis polyvinyl alcohol and polyvinyl alcohol in fiber form which are imported under HTS subheading 3905.30.00.

Scope PVA

The quantity of scope PVA imports from Taiwan decreased irregularly by *** percent between 2007 and 2009; imports between January-June 2010 were *** percent higher than imports between January-June 2009. During 2007-09, the quantity of scope PVA imports from all other sources increased by *** percent. The quantity of scope PVA imports from Taiwan in 2009 was *** percent greater than the quantity of imports from all other sources in the same year.

The total landed, duty-paid value of scope PVA imports from Taiwan decreased from 2007 to 2009 by *** percent. The unit value of scope PVA from Taiwan increased irregularly from $*** per pound in 2007 to $*** per pound in 2009. The unit value of scope PVA imports from all other sources increased and *** unit values than imports from Taiwan, ***. According to published sources, Japanese export prices to the United States are high.[4] On the other hand, the average unit values of U.S. imports from China are lower than those of the product from Taiwan.[5]

PVA

Imports from Taiwan consist *** of scope PVA. Imports from all other sources consist *** of scope PVA. In 2009, a *** was imported by *** from China and sold to ***.[6] Both *** have confirmed that the *** was imported to ***.[7] ***.[8]

Information on U.S. imports of scope PVA from Taiwan by hydrolysis ranges is presented in table IV-3. *** imports from Taiwan fall within the greater than 85% but less than 97% hydrolysis range category. ***, which accounted for approximately *** percent of imports from Taiwan in 2009, explained that ***.[9]

Table IV-3
Scope PVA: U.S. imports, by sources, and by hydrolysis ranges, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[10] 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

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[4] The average unit export price to the United States was $*** per kilogram ($*** per pound) in 2009. *Polyvinyl Alcohols*, September 2010, *Chemical Economics Handbook*, SRI Consulting, p. 580.1812 A. The average unit values of Japan's exports to the United States was $*** in 2009. Global Trade Atlas, retrieved December 9, 2010.

[5] *** reported that its average unit import price to the United States was $*** per pound in 2009. ***'s importer questionnaire response.

[6] ***'s importer questionnaire response.

[7] Ibid.; Email from ***, November 11, 2010.

[8] Email from ***, November 11, 2010.

[9] ***'s importer questionnaire response.

[10] 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)).

precedes the filing of the petition or the initiation of the investigation.[11] Imports from Taiwan accounted for *** percent of total imports of PVA by quantity during July 2003 through June 2004; imports of scope PVA, as defined in this final phase of the investigation, were not collected in the preliminary phase of the investigation, but ***, the imports from Taiwan of scope PVA far exceeded the threshold level of 3 percent of total imports, regardless of how the Commission defines the domestic like product in this investigation.[12]

APPARENT U.S. CONSUMPTION

Data concerning apparent U.S. consumption of scope PVA and PVA during the period for which data were collected are shown in tables IV-4a and IV-4b, respectively. Apparent U.S. consumption, by quantity, of both scope PVA and PVA declined *** between 2007 and 2009 and then increased *** between January-June 2009 and January-June 2010.

Table IV-4a
Scope PVA: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table IV-4b
PVA: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

U.S. MARKET SHARES

U.S. market share data for scope PVA and PVA are presented in tables IV-5a and IV-5b, respectively. U.S. producers' share of apparent U.S. consumption (quantity) of scope PVA decreased between 2007 and 2009, whereas Taiwan's share of apparent U.S. consumption increased. The U.S. market share of scope PVA from all other sources declined between 2007 and 2008 but increased between 2008 and 2009. U.S. producers had a higher share of apparent U.S. consumption in interim 2010 than in interim 2009.

Table IV-5a
Scope PVA: U.S. consumption and market shares, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table IV-5b
PVA: U.S. consumption and market shares, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

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

[12] Preliminary phase staff report, tables II-1 and IV-1.

For the PVA market, U.S. producers' market shares followed the same trends as for the scope PVA market as did market shares for nonsubject imports. Taiwan's share of the PVA market increased between 2007 and 2008 but was lower in 2009. Its PVA market share in interim 2010 was lower than in interim 2009.

RATIO OF IMPORTS TO U.S. PRODUCTION

Information concerning the ratios of imports to U.S. production of scope PVA and PVA are presented in tables IV-6a and IV-6b, respectively.

Table IV-6a
Scope PVA: U.S. production, U.S. imports, and ratios of imports to U.S. production, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table IV-6b
PVA: U.S. production, U.S. imports, and ratios of imports to U.S. production, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

PART V: PRICING AND RELATED INFORMATION[1]

FACTORS AFFECTING PRICING

U.S. prices of PVA can fluctuate based on demand factors such as overall U.S. economic activity and demand fluctuations in sectors such as motor vehicles, textiles, emulsion polymerization, adhesives, and paper. On the supply side, prices of PVA can differ by a number of product specifications, including, but not restricted to, the degree of hydrolysis and viscosity.[2] In addition, the price of PVA can fluctuate due to competitive pricing and the quantity of the sale.

The various standard and specialty grades of PVA offer a variety of performance properties that make PVA useful in a wide range of applications. Some of these performance properties of PVA include water solubility, abrasion resistance, adhesive and bonding properties, and grease/oil resistance.

Historically, the highest prices have been paid by the paper industry, followed by adhesives and emulsion polymerization, then textiles, with the lowest prices for products sold to textile compounders. However, this price hierarchy has been characterized as being "aspirational" in that sales of PVA for more valuable end products do not consistently result in higher returns.[3] [4]

During the PVA reviews, Solutia noted that the cost of production for a particular type of PVA is a function of raw materials and the production run time. While PVB-grade PVA does not use more VAM per pound than other grades of PVA,[5] different grades can involve additional production steps and thus have higher production costs.[6] With respect to scope PVA and PVB-grade PVA, Sekisui/(Celanese) and DuPont contended that "the role of quality specifications in PVA pricing is overshadowed by (1) purchase volume, (2) purchasing terms (long-term contract, short-term contract, or spot market), and (3) overall supply/demand in the market.[7]

Raw Material Costs

The principal raw material inputs used to produce PVA are ethylene, acetic acid, and methanol, or VAM and methanol. Ethylene and acetic acid are combined to produce VAM, which is polymerized and combined with methanol to produce PVA. As discussed in Part VI of this report, raw materials constituted the largest share of U.S. producers' net costs of goods sold (COGS), averaging approximately *** percent for scope PVA and *** percent for all PVA during January 2007-June 2010. Natural gas, or its derivative ethane, is the primary feedstock used to manufacture VAM, the principal raw material used

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[1] During January 2007-June 2010, U.S. producers supplied scope and/or PVB-grade PVA, *** PVA imported from Taiwan was ***. PVA imported from nonsubject countries was *** during this period, but a limited amount was low-hydrolysis and fiber-form PVA ***.

[2] DuPont reported that "***." PVA reviews, e-mail from ***, December 16, 2008, and reported in the confidential staff report, p. V-1.

[3] PVA reviews, staff interview with *** officials, December 3, 2008 and reported in the confidential staff report, p. V-1.

[4] In fact, Sekisui/(Celanese) and DuPont contended that ***. PVA reviews, Sekisui/(Celanese)/DuPont's posthearing brief, Part II: Answers to Commission Questions, p. 7, and reported in the confidential staff report, p. V-1.

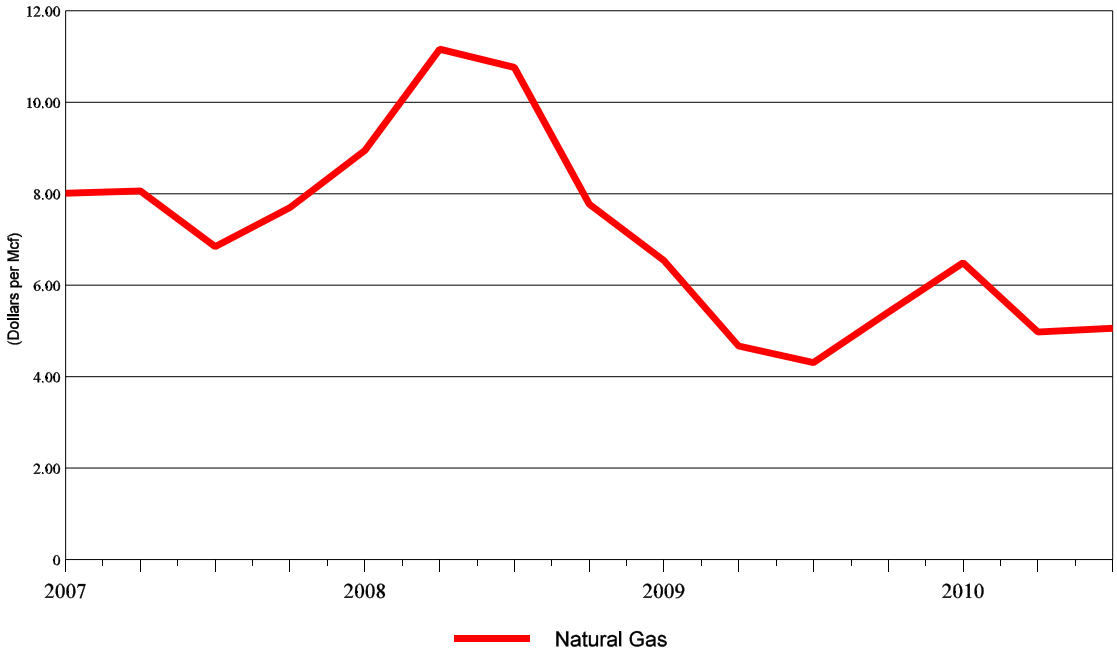
[5] About two pounds of VAM is used to produce one pound of PVA (hearing transcript, p. 144 (Becker)).

[6] PVA reviews, Solutia's posthearing brief, p. A46, and reported in the confidential staff report, pp. V-1 and V-2.

[7] PVA reviews, Sekisui/(Celanese) and DuPont's posthearing brief, Part II: Answers to Commission Questions, pp. 6-7. In addition, Sekisui/(Celanese) and DuPont stated that because "***." Ibid., p. 7; and reported in the confidential staff report, p. V-2.

to produce PVA. Thus, natural gas prices reportedly have been a substantial factor in U.S. PVA production costs.[8] As shown in figure V-1, quarterly natural gas prices to U.S. industrial users fluctuated but increased from $8.01 per thousand cubic feet ("Mcf") in January-March 2007 to a period high of $11.16 per Mcf in April-June 2008.[9] Prices for natural gas then decreased to a period low of $4.31 per Mcf by July-September 2009, increased again to $6.49 per Mcf by January-March 2010, and decreased to $4.98 per Mcf in April-June 2010,[10] before increasing somewhat to $5.06 per Mcf in July-September 2010.

Figure V-1
Natural gas prices: U.S. natural gas industrial prices, by quarter, January 2007-September 2010



Note.– "Mcf" refers to 1,000 cubic feet of natural gas.

Source: Compiled from monthly price data reported by the U.S. Department of Energy, Energy Information Administration, http://tonto.eia.doe.gov/dnav/ng/hist/n3035us3m.htm, retrieved January 14, 2011.

[8] PVA preliminary phase investigation, conference transcript, p. 13 (Massa); pp. 15-17 and 19 (Neuheardt); and pp. 25-26 (Klett); in addition, petitioner's postconference brief, exh. 10; and reported in the confidential staff report, p. V-2.

[9] Quarterly price data were calculated as simple averages of monthly price data reported by the U.S. Energy Information Administration.

[10] Reported quarterly selling prices of five specified U.S.-produced PVA products, shown later in Part V, were not closely correlated with the quarterly movements in the natural gas prices during January 2007-June 2010. The correlation coefficients between prices of the PVA products and natural gas ranged from *** percent for product 4 to *** percent for products 1 and 2. Several factors including by-product credits, purchases of various raw material inputs, unplanned shutdowns, and fluctuations in PVA demand may have weakened the link between natural gas prices and selling prices of PVA. In addition, Sekisui asserted that *** (petitioner's posthearing brief, Questions from Commissioner Pearson, p. 31). DuPont appears to agree and stated that the price of PVA is determined by a variety of factors (hearing transcript, p. 159 (Becker)).

U.S. producers were asked in their questionnaire to describe trends in prices of raw materials, particularly natural gas/ethane, during January 2007-June 2010 and expected in the future, particularly as these price changes are related to their production of scope PVA. *** provided comments, which are presented in the following tabulation.[11]

* * * * * * *

U.S. Inland Transportation Costs

The two responding U.S. producers of scope PVA, DuPont and Sekisui, and the five responding U.S. importers of scope PVA from Taiwan (***)[12] reported in their questionnaire responses the average U.S. freight costs to their U.S. customers' locations during January 2007-June 2010. U.S.-inland freight costs for domestic scope PVA averaged *** percent of the delivered prices, and U.S.-inland freight costs of imported scope PVA from Taiwan averaged *** percent of the delivered prices. The responding U.S. producers of scope PVA and importers of scope PVA from Taiwan also reported in their questionnaire responses their U.S. shipments of the domestic and subject imported products, during January 2007-June 2010, that were shipped to U.S. customers in three specified distance categories. The weighted-average shipment shares of the domestic and subject imported scope PVA, by distance categories from their U.S. selling locations, are shown in the following tabulation.

	Share of U.S. shipments (*percent*)	
Distance shipped	U.S. scope PVA	Imported scope PVA from Taiwan
Within 100 miles	***	***
101 to 1,000 miles	***	***
Over 1,000 miles	***	***
Total	100.0	100.0

[11] In addition, Sekisui *** (petitioner's posthearing brief, Questions from Vice Chairman Williamson, pp. 12-13).

[12] *** together accounted for *** percent of the total quantity of reported imported scope PVA from Taiwan during January 2007-June 2010.

PRICING PRACTICES[13]

Pricing Methods

U.S. producers were asked to describe in their questionnaire responses how they determined the prices that they charged for their sales of scope PVA during January 2007-June 2010.[14] DuPont reported that ***. Sekisui reported that it ***. According to Sekisui, its ***.[15]

The six responding importers of scope PVA from Taiwan (***) reported in their questionnaire responses that their selling prices were determined on a transaction-by-transaction basis, and *** also determined prices through written contracts during January 2007-June 2010. *** comments were the same *** regarding how it determines prices.

U.S. producers of scope PVA and importers of scope PVA from Taiwan were asked to report in their questionnaire responses the percentage of their sales that were on a (1) spot basis, (2) short-term contract basis, and (3) long-term basis in 2009.[16] Two U.S. scope PVA producers, DuPont and Sekisui, and six importers of scope PVA from Taiwan (***) reported their 2009 U.S. shipments by length of sales period. Weighted-average shares of the 2009 U.S. commercial shipment quantities of the domestically produced and subject imported scope PVA, by length of sales period, are shown in the following tabulation.

Length of sales period	Share of U.S. shipments (*percent*)	
	U.S. scope PVA	Imported scope PVA from Taiwan
Spot sales	***	***
Short-term sales	***	***
Long-term sales	***	***
Total	100.0	100.0

*** reported in its questionnaire response that for scope PVA it offered *** long-term contracts of *** in length during January 2007-June 2010, *** that its long-term contracts were ***, and that it ***. *** reported that prices for scope PVA *** during the contract period; contracts *** price or both

[13] Information on pricing practices discussed here was based on questionnaire responses of the U.S. producers and importers of scope PVA, unless otherwise noted; DuPont and Sekisui provided all of the pricing practice information for U.S.-produced scope PVA.

[14] ***. *** supply contracts with *** are discussed later in this part of the report.

[15] Sekisui reported that prices are typically set on a quarterly basis in the U.S. market and that if the firm wanted to raise prices, it would typically make an announcement 30 days before the end of the quarter. However, Sekisui also noted that it can announce price increases but it still has to negotiate to achieve those. PVA review, hearing transcript (open session), pp. 46-47 (Purvis).

[16] Spot sales are usually one-time delivery, within 30 days of the purchase agreement; short-term sales are for multiple deliveries for up to 12 months after the purchase agreement; and long-term sales are for multiple deliveries for more than 12 months after the purchase agreement. Short-term and long-term sales can be arranged by contracts or verbal agreements.

price and quantity; and *** contracts *** Sekisui's contracts *** contain such provisions.[17] *** reported that its contracts ***. *** reported that its contract policy typically provides for ***.

Three importers of scope PVA from Taiwan (***) use long-term and/or short-term contracts. *** reported that the duration of its long-term contracts was *** and *** reported that their long-term contracts were adjusted *** for their imported PVA from Taiwan during January 2007-June 2010. Prices could be renegotiated during the contract period; contracts fixed prices or both price and quantity; and contracts typically did not contain meet-or-release provisions.

Purchasers reported in their questionnaire responses the frequency of price changes of the scope PVA that they purchased during January 2007-June 2010. They reported that price changes under long-term contracts typically occurred every 3-6 months, and generally occurred quarterly for all other sales.

Twenty-one of 23 responding purchasers reported negotiating with their suppliers for purchases of scope PVA, while the remaining 2 suppliers did not negotiate for their scope PVA purchases during January 2007-June 2010. Ten of the 21 purchasers reported quoting competing prices in their negotiations and the 11 other purchasers reported not mentioning competing prices. Purchasers reported negotiating a number of factors in their purchases, including cost, quality, service, cost needed to sell the downstream product in the market, payment terms, delivery, inventory strategy, packaging, and PVA price formula that includes PVA feedstock price movements and energy price movements. One purchaser, ***, reported that ***.

Discounts and Sales Terms

U.S. producers of scope PVA and importers of scope PVA from Taiwan were asked in their questionnaires to describe their discount policies for their sales of PVA during January 2007-June 2010. *** reported that discounts on their U.S. sales of their domestic PVA *** five of the six responding importers reported that they did not offer discounts. The remaining importer, ***, reported offering volume discounts.[18] According to ***, a typical discount for its *** scope PVA was a volume rebate that was offered if a customer purchased over a certain quantity of scope PVA during a calendar year. *** noted that volume discounts varied and were documented in a written contract. *** reported that *** ***. With regard to sales terms during January 2007-June 2010, *** reported that payment terms for sales of their domestic scope PVA were ***. The six responding importers of scope PVA from Taiwan reported payment terms that ranged from net 30 days to net 60 days during this period. Three of the six importers reported quoting their prices on a delivered basis, one reported quoting its prices on both an f.o.b. and delivered bases, another importer reported quoting its prices on an f.o.b. basis, and the single remaining importer (***) reported selling f.o.b. ***.

Supply Contracts

U.S. producers of PVA and importers of PVA from Taiwan were requested in their questionnaires to provide specified information on their top four completed supply contracts for their domestic and subject imported scope PVA and PVB-grade PVA that involved at least some delivery during 2010. In addition, the firms were requested to provide information on the history and status of each ongoing

[17] Sekisui reported that "the vast majority" of its contractual customer base has contracts with meet-or-release clauses and noted that "it is very common for the meet-or-release" clauses to be invoked. PVA reviews, hearing transcript, pp. 120-121 (Purvis).

[18] Eleven of 20 responding purchasers indicated that larger quantity purchases resulted in lower prices during January 2007-June 2010, while the 9 remaining purchasers reported that larger quantities did not result in lower prices.

negotiation that involved future U.S. sales of their domestic and subject imported scope PVA and PVB-grade PVA. ***.[19] ***.[20]

The supply contracts for PVA reported by *** are shown in tables V-1a and V-1b for its *** PVA, ***, and supply contracts for domestic PVA reported by Sekisui are shown in table V-2.

Table V-1a
PVA contracts: * top U.S. supply contracts for its U.S.-produced PVA during January 2007-June 2010**

* * * * * * *

Table V-1b
PVA contracts: * top U.S. supply contracts for its *** PVA *** during January 2007-June 2010**

* * * * * * *

Table V-2
PVA contracts: Sekisui's top U.S. supply contracts for its U.S.-produced PVA during January 2007-June 2010

* * * * * * *

DuPont and Sekisui also provided information in their questionnaires on their ongoing negotiations for sales of their U.S.-produced PVA. DuPont reported that "***." Sekisui reported that ***.[21] ***. ***.

Sekisui provided followup information on its U.S. PVA contract negotiations for 2011.[22] Sekisui reported that it is currently negotiating contracts with ***,[23] ***.[24] ***.[25]

DuPont also provided information in its questionnaire responses on its ongoing contract negotiations for ***. DuPont reported that "***."

[19] ***.

[20] ***.

[21] Sekisui reported in its questionnaire response that it ***. See table V-2 describing supply contracts in place.

[22] Petitioner's posthearing brief, Questions from Commissioner Aranoff, pp. 48-49; and Questions from Commissioner Lane, pp. 72-75.

[23] ***.

[24] ***.

[25] ***.

PRICE DATA

Announced Selling-Price Changes for Scope PVA

U.S. producers of scope PVA and importers of scope PVA from Taiwan were asked in their questionnaires to report the chronology and effectiveness of their announced selling price changes for the domestic and subject imported scope PVA during January 2007-June 2010. DuPont and Sekisui reported for the domestic scope PVA and *** reported for the imported scope PVA from Taiwan.[26] The reported announced price changes are shown, by date, country of origin, and reporting firm, in table V-3.

Table V-3
Scope PVA: Announced selling price changes for U.S.-produced and imported Taiwan scope PVA, by date, country of origin, and reporting firm, during January 2007-June 2010

* * * * * * *

In addition, Sekisui reported announced price increases after June 2010.[27] The firm initiated a price increase of $0.06 per pound of PVA effective December 15, 2010. The firm also reported that ***;[28] ***. Sekisui indicated that ***.[29]

Twenty purchasers commented in their questionnaire responses on price leaders of scope PVA in the U.S. market during January 2007-June 2010. Eleven firms identified *** as the price leader of scope PVA in the U.S. market, four identified ***, and three identified *** (some firms identified more than one firm as a price leader); in addition, three firms indicated that no price leaders existed, and two firms did not know if a price leader existed. Three purchasers identified specific announced price changes of ***, one purchaser identified specific announced price changes of ***, and one purchaser identified announced price changes of ***. Three purchasers provided additional comments regarding price leaders. *** indicated that "***." *** indicated that "***." *** indicated "***."

Questionnaire Price Data

The Commission requested U.S. producers and importers of scope PVA to provide quarterly sales data for the total quantity and net f.o.b. value[30] of selected products that were shipped in bags[31] to U.S. end-user customers unrelated to the suppliers during January 2007-June 2010. The price data were requested for scope PVA imported from Taiwan and from nonsubject countries; the latter were requested

---

[26] *** indicated that the announced price changes it initiated ***.

[27] Petitioner's posthearing brief, Questions from Chairman Okun, pp. 6-7, and exhibits 4 and 5; and respondents' posthearing brief, p. 11.

[28] DuPont reported a 5-percent increase in prices of its PVA in the fourth quarter of 2010. Ibid.

[29] Petitioner's posthearing brief, Questions from Chairman Okun, pp. 6-7.

[30] For any sales of scope PVA that were on a delivered basis, the firms were requested to deduct from the delivered price all U.S.-inland freight costs to their end-user customers and to report the resulting effective f.o.b. sales values. The firms were requested to report only those transactions where values, either actual or adjusted, were on an f.o.b. basis.

[31] U.S. producers of PVA and importers of the PVA from Taiwan reported in their questionnaire responses the quantity of their U.S. commercial shipments of scope PVA during 2009 that was in bags and in bulk. U.S. producers reported shipping *** percent of the domestic product in bags and the remaining *** percent in bulk, whereas importers reported shipping *** percent of the imported Taiwan product in bags and the remaining *** percent in bulk. U.S. producers and importers reported that the price of the bulk PVA is generally lower than the price of the bagged PVA.

for each importer's top three nonsubject-country sources. The five products for which pricing data were requested are as follows:[32] [33]

> ***Product 1.***–Scope PVA for use in adhesive applications with a range of hydrolysis between 80-89 percent, a viscosity between 3-6 (centipois), standard granular particle size, and non-tackified;
>
> ***Product 2.***–Scope PVA for use in adhesive applications with a range of hydrolysis between 80-89 percent, a viscosity between 20-39 (centipois), standard granular particle size, and non-tackified;
>
> ***Product 3.***–Scope PVA for use in adhesive applications with a range of hydrolysis between 80-89 percent, a viscosity between 40-70 (centipois), standard granular particle size, and non-tackified;
>
> ***Product 4.***–Scope PVA for use in paper applications with a range of hydrolysis between 98-99 percent, a viscosity between 3-12 (centipois), standard granular particle size, and non-tackified;
>
> ***Product 5.***–Scope PVA for use in textile applications with a range of hydrolysis between 87-97 percent, a viscosity between 12-39 (centipois), standard granular particle size, and non-tackified.

One U.S. producer of scope PVA (***),[34] two importers of scope PVA from Taiwan (***),[35] and four importers of scope PVA from five nonsubject countries (***),[36] provided usable price data for sales of the requested products, but not necessarily for all products or periods.

U.S. producers' reported price data accounted for approximately *** percent of the total reported U.S. commercial shipment quantity of U.S.-produced scope PVA during January 2007-June 2010.[37] U.S. importers' reported price data accounted for almost *** percent of the total reported U.S. commercial shipment quantity of scope PVA imported from Taiwan during this period.[38]

---

[32] Sekisui/(Celanese) suggested these products during the PVA preliminary-phase investigation and both DuPont and Sekisui had agreed that these products were representative of both the domestic and subject imported PVA. No other products were suggested in comments on the draft questionnaires during the final phase. PVA is sold predominantly directly to end users and, based on information during the PVA reviews, substantially in bags in the U.S. market. The staff restricted the request for price data to these types of sales to reflect the majority of sales and to minimize the burden on responding firms.

[33] In addition, the questionnaires also requested pricing data for a firm's product that does not exactly meet the specifications requested, but which is competitive with the specified product. No firm reported price data for such products.

[34] ***.

[35] *** together accounted for *** percent of the total quantity of reported imported scope PVA from Taiwan during January 2007-June 2010.

[36] Price data reported for nonsubject countries accounted for *** percent of the total reported U.S. commercial shipment quantity of PVA imported from nonsubject countries during January 2007-June 2010.

[37] The relatively low coverage ratio for the U.S. producers' price data was the result of U.S.-produced PVA sold to end users that was not included in the specified products, and U.S.-produced PVA shipped to distributors. ***.

[38] During the preliminary phase, PVA price data reported by U.S. producers accounted for 39.9 percent of their U.S. commercial shipments during January 2001-June 2004, while price data reported for the imported Taiwan PVA accounted for 59.8 percent of the importers' U.S. commercial shipments. The requested price data during the preliminary phase, however, differs from those requested during the final phase. Although the products were the same for both sets of requested price data, several differences exist. During the preliminary phase, price data were requested for sales to all U.S. customers (end users and distributors combined), and for bagged and bulk sales

(continued...)

Total quantities of the specified five scope PVA products for which a U.S. producer of scope PVA and U.S. importers of scope PVA from Taiwan reported their requested pricing data during January 2007-June 2010 are shown in the following tabulation.

Quantities of scope PVA *(1,000 pounds)*			
Products	**Sales of U.S.-produced scope PVA**	**Sales of scope PVA from Taiwan**	**TOTAL**
Product 1[1]	***	***	32,971
Product 2[2]	***	***	24,801
Product 3[3]	***	***	31,720
Product 4[4]	***	***	21,698
Product 5[5]	***	***	7,576
Totals	***	***	118,766

[1] Scope PVA for use in adhesive applications with a range of hydrolysis between 80-89 percent, a viscosity between 3-6 (centipois), standard granular particle size, and non-tackified.
[2] Scope PVA for use in adhesive applications with a range of hydrolysis between 80-89 percent, a viscosity between 20-39 (centipois), standard granular particle size, and non-tackified.
[3] Scope PVA for use in adhesive applications with a range of hydrolysis between 80-89 percent, a viscosity between 40-70 (centipois), standard granular particle size, and non-tackified.
[4] Scope PVA for use in paper applications with a range of hydrolysis between 98-99 percent, a viscosity between 3-12 (centipois), standard granular particle size, and non-tackified.
[5] Scope PVA for use in textile applications with a range of hydrolysis between 87-97 percent, a viscosity between 12-39 (centipois), standard granular particle size, and non-tackified.

U.S. producers of scope PVA and importers of scope PVA from Taiwan were requested in their questionnaires to comment on the appropriateness of aggregating prices reported by all firms for scope PVA produced domestically and to do likewise for scope PVA imported from Taiwan and for scope PVA imported from each nonsubject country. *** responded. *** provided the following discussion:[39]

"***."

*** reported that "***."

[38] (...continued)
combined. In addition, DuPont reported prices for its domestic product 5 even though its specifications differed somewhat from that requested, and DuPont reported only partial-period price data for its domestic and imported Taiwan PVA. Finally, a total of four importers (DuPont, H&C Industries, Perry Chemical, and Samarian Chemicals) reported price data for the imported Taiwan products.

[39] DuPont also asserted that Sekisui and DuPont are full service suppliers, whereas Perry Chemical is an office in New York *** that provides none of the R&D, technical support, or other value-added services such as special packaging that are available from Sekisui and DuPont. Perry Chemical provides no services and thus should be expected to have lower prices than Sekisui and DuPont. Respondents' posthearing brief, p. 5 and 13.

U.S. producers of scope PVA and importers of scope PVA from Taiwan were requested to report any unusual/sharp quarter-to-quarter price fluctuations in their reported price data for the domestic and subject imported scope PVA. ***, and an importer, ***, responded.[40] *** provided the following response:

"***."

*** indicated that "***."

U.S. producers of scope PVA and importers of scope PVA from Taiwan were also requested in their questionnaires to report, for each applicable product and quarter during January-June 2010, the range of prices represented by the total quarterly values that they reported and provide explanations for the ranges. One domestic producer, ***, was the only firm responding. During January-March 2010, the greatest price range was *** percent (the percentage difference between the lowest and highest prices) for product *** sales compared to the lowest price range of *** percent for product *** sales. During April-June 2010, the greatest price range was *** percent for product *** sales compared to the lowest price range of *** percent for product *** sales.[41] Reasons for the price ranges of each product within a quarter included ***.

Price trends of the domestic and subject imported scope PVA specified products and price comparisons between the domestic and imported Taiwan scope PVA are based on the reported quarterly net U.S. f.o.b. selling price data for scope PVA in bags sold to end users. Quarterly trends in the weighted-average selling prices and the quantities of the domestic and subject imported products 1-5 are shown by products in tables V-4 through V-8 and figures V-2a through V2e, respectively; price comparisons between the domestic and the subject imported products are also shown in these tables. In addition, *** reported selling prices of PVA products 1-5 produced domestically and *** selling prices of products 1-5 imported from Taiwan are shown for each firm in appendix E.[42]

Table V-4
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of domestic and subject imported product 1 sold in bags to end users, and margins of underselling/ (overselling), by quarters, January 2007-June 2010

* * * * * * *

Table V-5
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of domestic and subject imported product 2 sold in bags to end users and margins of underselling/ (overselling), by quarters, January 2007-June 2010

* * * * * * *

[40] Another importer of the scope PVA from Taiwan, ***, also provided comments. The firm reported ***. *** reported that there were no unusual/sharp variations in its price data.

[41] ***.

[42] The Commissioners indicated in their views on their remand determination in the preliminary-phase investigation that they would more closely examine whether ***. *Polyvinyl Alcohol from Taiwan, Invs. No. 731-TA-1088 (Preliminary) (Remand)*, Confidential Views of the Commission, p. 28, fn. 135.

Table V-6
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of domestic and subject imported product 3 sold in bags to end users and margins of underselling/ (overselling), by quarters, January 2007-June 2010

* * * * * * *

Table V-7
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of domestic and subject imported product 4 sold in bags to end users and margins of underselling/ (overselling), by quarters, January 2007-June 2010

* * * * * * *

Table V-8
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of domestic and subject imported product 5 sold in bags to end users and margins of underselling/ (overselling), by quarters, January 2007-June 2010

* * * * * * *

Figure V-2a
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 1 sold in bags to end users, by quarters, January 2007-June 2010

* * * * * * *

Figure V-2b
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 2 sold in bags to end users, by quarters, January 2007-June 2010

* * * * * * *

Figure V-2c
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 3 sold in bags to end users, by quarters, January 2007-June 2010

* * * * * * *

Figure V-2d
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 4 sold in bags to end users, by quarters, January 2007-June 2010

* * * * * * *

Figure V-2e
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 5 sold in bags to end users, by quarters, January 2007-June 2010

* * * * * * *

Price Trends

In general, quarterly net f.o.b. selling prices of domestic scope PVA and imported scope PVA from Taiwan fluctuated similarly during January 2007-June 2010, with prices of the domestic and subject imported scope PVA products higher at the end of the period than at the beginning of the period (tables V-4 through V-8 and figures V-2a through V-2e).[43] Prices of the domestic and imported Taiwan products typically increased initially and peaked at some point during July 2008-March 2009, depending on the product and country of origin, before fluctuating but decreasing somewhat through the end of the period. This trend may reflect several factors including shortages of PVA by *** during periods of price increases, followed by the impact of the recession and subsequent uneven growth in the U.S. economy on demand for PVA during the periods of decreasing prices. These and other factors of demand and supply affecting PVA in the U.S. market are discussed in detail in Part II. A summary of price trends and high/low prices for the domestic and imported Taiwan scope PVA products is shown in table V-9.

Table V-9
PVA: Summary of trends in quarterly weighted-average net f.o.b. selling prices for domestic and subject imported PVA products 1-5, by country of origin, January 2007-June 2010

* * * * * * *

Quarterly selling prices of the domestic products *** increased at higher rates during January 2007-June 2010 than prices of the imported Taiwan products. Period price increases of the domestic products ranged from a low of *** percent for product *** to a high of *** percent for product ***.[44] In comparison, period price increases of the same imported Taiwan products were *** percent for product *** and *** percent for product ***. Other than domestic product ***, the next largest period increase in prices was *** percent for the domestic product ***, compared to *** percent for the same imported Taiwan product.

Quarterly sales quantities reported by the U.S. producers and importers of the subject imported scope PVA products fluctuated during January 2007-June 2010, and varied by product and country of origin. Quarterly quantities of the domestic PVA ended lower at the end of the period compared to the beginning of the period for products ***, but higher for product ***. On the other hand, quarterly quantities of all five imported Taiwan PVA products ended higher at the end of the period compared to the beginning of the period. The quarterly sales quantities generally had distinguishing period lows or highs. For product ***, quarterly sales quantities of both the domestic and imported Taiwan products fell to period lows during January-March 2009. For product ***, quarterly sales quantities of the domestic product fell to a period low during January-March 2009 and the quantity of the imported Taiwan product fell to a period low during October-December 2008. Product *** did not show a noticeable distinguishing period highlight for either the domestic or imported Taiwan products. For product ***, quarterly sales quantities of the domestic and imported Taiwan products reached period highs during July-September 2008 and April-June 2008, respectively. For product ***, quarterly quantities of the domestic product exhibited some fluctuations early in the period but were relatively stable during January 2009-June 2010. On the other hand, sales quantities of the Taiwan product *** fluctuated widely, reaching a period high during January-March 2008 and a period low during July-September 2009.

U.S. purchasers were asked in their questionnaires if their firm had negotiated prices for 2010 for scope PVA and PVB-grade PVA and to report the percentage price increase or decrease for 2010 prices as compared to 2009 prices, by country of origin. Twenty-three purchasers provided the requested

[43] As noted earlier in Part V, ***.

[44] As noted earlier in Part V, ***.

information for scope PVA (some purchasers responded for more than a single country), which is summarized in the tabulation below.[45]

Number of purchasers reporting purchase price changes between 2009 and 2010 for scope PVA					
	Increase		Decrease		No change
Country of origin	Number	Range (percentage)	Number	Range (percentage)	Number
United States	13[1]	***	4	***	***
Taiwan	9[2]	***	1	***	1
China	***	***	***	***	***
Germany	***	***	***	***	***
Singapore	***	***	***	***	***
All other countries	***	***	***	***	***

[1] One of these responding 13 purchasers, ***, reported a price increase of $*** per pound in 2010 for the domestic PVA, instead of a percentage price change.

[2] One of these responding 9 purchasers, ***, reported a price increase of $*** per pound in 2010 for the imported Taiwan PVA, instead of a percentage price change.

Price Comparisons

A total of 70 quarterly net U.S. f.o.b. selling price comparisons were possible between the domestic scope PVA and imported Taiwan scope PVA products 1-5 shipped in bags to U.S. end users during January 2007-June 2010. In 58 of the 70 selling price comparisons, the imported Taiwan products were priced less than the U.S.-produced products; in 11 other price comparisons the subject imported products were priced higher than the U.S.-produced products; and in the 1 remaining price comparison, the domestic and subject imported products were sold at the same price.[46] The price comparisons based on reported selling price data are shown by quarter and product in tables V-4 through V-8 and are summarized in table V-10.

Table V-10
Scope PVA: Number of quarterly net weighted-average U.S. f.o.b. selling price comparisons between the domestic scope PVA and imported scope PVA from Taiwan, by year and by product, import quantities, and ranges of under/(over)selling, January 2007-June 2010

* * * * * * *

[45] In addition, ***.

[46] As indicated earlier in Part V, DuPont indicated ***.

LOST REVENUES AND LOST SALES[47]

In its producer questionnaire response, *** reported 10 allegations of lost revenues and 8 allegations of lost sales due to competition from imports of PVA from Taiwan during January 2007-June 2010.[48] The lost revenue allegations totaled ***, involving about *** pounds of PVA, and the lost sales allegations totaled almost *** pounds of PVA for approximately ***. These allegations involved only scope PVA.[49] Staff received usable information from 7 of the 16 purchasers named in the allegations; a summary of the information is shown in table V-11 for lost revenue allegations and table V-12 for lost sales allegations. Additional comments from purchasers are presented in the text. In addition, *** provided short descriptions of most of its lost revenue and lost sales allegations, which are also included.

Table V-11
Scope PVA: U.S. producers' lost revenue allegations

* * * * * * *

Table V-12
Scope PVA: U.S. producers' lost sales allegations

* * * * * * *

*******:

*** asserted the following– "***."

***:

*** asserted the following--"***,[50] ***."

*******:

*** disagreed with the *** allegation and provided the following comments. "***."

*******:

*** asserted the following--"***."

*******:

*** asserted the following–"***." *** asserted that $***. He also indicated that ***.

*******:

*** asserted the following--"***." *** of *** agreed with the *** allegation, but corrected the reported rejected price of *** per pound for the domestic product and corrected the reported accepted price for the PVA from Taiwan of *** per pound.

*******:

*** asserted the following--"***."

*******:

*** asserted the following--"***."

*******:

*** asserted the following--"***."

---

[47] The lost revenue and lost sales allegations presented in this section are those reported and investigated during the final phase of the antidumping investigation involving PVA from Taiwan.

[48] ***.

[49] The lost revenue/sales allegations totaled approximately *** pounds of scope PVA, which accounted for *** percent of domestic producers' U.S. commercial shipments of scope PVA during January 2007-June 2010, or *** percent of their U.S. commercial shipments of all PVA during this period.

[50] ***.

***:

*** asserted the following--"***."

***:

*** asserted the following:[51] "***."

***:

*** asserted the following--"***."

***:

*** asserted the following--"***." *** of *** disagreed with the *** allegation. *** asserted that "***."

***:

*** asserted the following–"***." *** of *** disagreed with the *** allegation and provided the following comments. "***."

***:

*** asserted the following--"***."

***:

*** asserted the following--"***."

[51] This narrative applies ***.

PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

BACKGROUND

Usable financial data were reported on their operations on PVA[1] by the same three firms, DuPont, Sekisui,[2] and Solutia, that provided production and shipment data. Each of these firms has a December 31 fiscal year end. These data accounted for all known U.S. production of PVA in 2009. This section of the report provides financial data for the firms' total and U.S. merchant market operations on scope PVA and PVA.[3]

SCOPE PVA AND PVA OPERATIONS

Results of U.S. firms' operations on scope PVA are briefly summarized here:

- Sales quantity fell consistently and sales value fell irregularly between 2007 and 2009, but both were higher in interim 2010 than in interim 2009.[4] Sales are composed of open market sales and internal consumption, ***, and both fell. Sales unit values increased irregularly between the full years but were lower in interim 2010 than in interim 2009.

- The cost of goods sold ("COGS") fell irregularly between the full years but was greater in interim 2010 than in interim 2009. Relative to sales value, COGS was flat after deduction of the by-product credit but on a per-unit basis COGS increased irregularly between the full years. COGS was lower on a ratio-to-sales basis and per-unit basis in interim 2010 compared with interim 2009.

- Operating income in 2007 fell *** in 2009. The *** in interim 2010 than in interim 2009.

Results of U.S. firms' operations on PVA are briefly summarized here:

- Sales quantity fell consistently and sales value fell irregularly between 2007 and 2009, but both were higher in interim 2010 than in interim 2009. Sales are composed of open market sales and

---

[1] As used here, PVA includes both scope PVA (as defined by the U.S. Department of Commerce) and PVB-grade PVA.

[2] On July 1, 2009 Sekisui America Corp. acquired the two Celanese PVA plants at Calvert City, KY, and Pasadena, TX, and renamed the business Sekisui Specialty Chemicals America, LLC. Sekisui has operated both plants and provided data for the period July 1, 2009 through June 30, 2010; Celanese provided data to Sekisui, which were consolidated with Sekisui's response, for the period from January 1, 2007 through June 30, 2009. In the review investigations on PVA, Commission staff verified Celanese's questionnaire response (Verification Report, memorandum INV-FF-153, December 17, 2008). ***.

[3] DuPont reported data for ***. Sekisui reported data for ***. Solutia reported data for ***. Hence, scope PVA data are those of *** while PVA data are those of ***.

[4] The volume increase in 2010 from 2009 was attributed at least in part, to efforts by PVA consumers to restock inventory following the 2009 recession. Hearing transcript, pp. 27-28 (Neuhardt), 39 (Lutz), 79 (Button), and 93 (Neuheardt); and petitioner's posthearing brief, response to question 8, p. 13. Chang Chun and DuPont state that demand for PVA also is increasing because of several new applications and increased demand for PVB-grade PVA. Hearing transcript, pp. 170-171 (Brisbon) and respondents' posthearing brief, pp. 14-15.

internal consumption, ***, and both fell. Sales unit values increased irregularly between the full years but were lower in interim 2010 than in interim 2009.

- COGS fell irregularly between the full years but was greater in interim 2010 than in interim 2009. Relative to sales value, COGS was smaller after deduction of the by-product credit but on a per-unit basis COGS increased irregularly between the full years. COGS was lower on a ratio-to-sales basis and per-unit basis in interim 2010 compared with interim 2009.[5]

- Operating income increased *** from 2007 to 2009. Operating *** in interim 2010 than in interim 2009.

Table VI-1 presents financial data on scope PVA and table VI-2 presents financial data on PVA.

Table VI-1
Scope PVA: Results of operations of U.S. firms, calendar years 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table VI-2 presents financial data for PVA, which consist of both scope PVA and PVB-grade PVA combined.

Table VI-2
PVA: Results of operations of U.S. firms, calendar years 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Tables VI-3 and VI-4 present financial data on a firm-by-firm basis for scope PVA and PVA (scope PVA and PVB-grade PVA combined), respectively. These data are consistent with those in tables VI-1 and VI-2, respectively. Table VI-5 presents data for raw material costs of the three firms as reported and as calculated with the deduction of by-product credits.

Table VI-3
Scope PVA: Results of operations of U.S. firms, by firm, calendar years 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table VI-4
PVA: Results of operations of U.S. firms, by firm, calendar years 2007-09, January-June 2009, and January-June 2010

* * * * * * *

[5] Chang Chun and DuPont provided information on PVA price increases announced ***. They calculated ***. Respondents' prehearing brief, pp. 16-17 and 24, and exh. 3. Also, see respondents' posthearing brief, pp. 24-25. By focusing on *** only one component of COGS, this analysis does not consider the effect of volume or price on the fixed costs of the industry as a whole, cost classification differences between U.S. firms, changes in by-product revenues, or whether the announced price increases were successfully implemented. Sekisui contends that ***. Petitioner's posthearing brief, p. 11 and answer to question 30, pp. 54-55. *** and is discussed later in this part of this report.

Table VI-5
PVA: Raw material costs of U.S. firms, by firm, calendar years 2007-09, January-June 2009, and January-June 2010

* * * * * * *

DuPont, the ***, reported data for ***. Sekisui, the *** producer of ***, provided data for ***. Solutia, the ***.[6]

Raw material costs are a significant factor in industry profitability because they vary with the fluctuations in petroleum products and natural gas, used as inputs and for processing. Raw material costs were offset *** by the fact that these firms are able to recycle some of their key inputs. Overhead costs also are high for these producers, and are accounted for by utility and environmental costs such as steam, process costs, health and environmental remediation, and plant administrative costs (including salaries, maintenance, and depreciation).

Merchant Market Operations on Scope PVA and PVA

The Commission's questionnaire requested firms to provide data separately for their merchant market operations on scope PVA as well as for PVB-grade PVA. The merchant market data generally follow the data shown in tables VI-1 and VI-2 for scope PVA and total PVA operations of DuPont and Sekisui; differences are ***. Income-and-loss data on scope PVA merchant market operations are presented in table VI-6; selected data on scope PVA by firm are presented in table VI-7. PVA merchant market operations are presented in table VI-8 and selected data on PVA operations by firm are presented in table VI-9.[7]

Table VI-6
Scope PVA: Results of merchant market operations of U.S. firms, calendar years 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table VI-7
Scope PVA: Results of merchant market operations of U.S. firms, by firm, calendar years 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Table VI-8
PVA: Results of merchant market operations of U.S. firms, calendar years 2007-09, January-June 2009, and January-June 2010

* * * * * * *

[6] Solutia's ***. See Solutia's questionnaire response, questions II-21, III-3, and III-4. In an e-mail to staff, Solutia stated ***. E-mail to staff from ***, February 1, 2011. EDIS document 443777, February 2, 2011.

[7] As noted earlier, ***. Sekisui contends that ***. Petitioner's posthearing brief, answer to question 30, p. 55. As noted in tables VI-1 and VI-2, the average unit value of gross profit and the ratio of gross profit to sales ***. The data in table VI-8 indicate ***.

Table VI-9
PVA: Results of merchant market operations of U.S. firms, by firm, calendar years 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Variance Analysis

Summary variance analyses for the operations of U.S. producers on scope PVA and PVA are presented in table VI-10, as are summary variance analyses for the merchant market operations on scope PVA and PVA. The information for these variance analyses is derived from tables VI-1, VI-2, VI-6, and VI-8, respectively.[8] The analysis for scope PVA shows that the decrease of $*** in operating income from 2007 to 2009 was attributable to the favorable price variance (unit sales values increased) that was *** the unfavorable net cost/expense variance (unit costs increased) and volume variances combined. Operating *** on scope PVA decreased by $*** in interim 2010 compared to interim 2009 because an unfavorable price variance (unit sales values fell) was less than the favorable variance on net cost/expense (unit costs and expenses decreased). Changes in operating income and the mix of favorable/unfavorable variances for PVA were similar to that of scope PVA except that operating income for PVA *** and rose between 2007 and 2009. The variance analyses for merchant market operations on scope PVA and on PVA generally follow the variance analysis for scope PVA, described earlier.

Table VI-10
PVA: Variance analysis on U.S. firms' operations, calendar years 2007-09, and January-June 2009-10

* * * * * * *

Assets and Return on Investment

The Commission's questionnaire requested data on assets used in the production, warehousing, and sale of PVA to compute return on investment ("ROI") for 2007 to 2009. Table VI-11 presents these data for scope PVA and for PVA, and in summary form for merchant market operations on PVA. The data for operating income or losses are from table VI-1 and table VI-2, which correspond to scope PVA and PVA, respectively. Operating income or loss was divided by total assets, resulting in ROI for scope PVA and for PVA, respectively. Total assets of scope PVA and PVA increased from 2007 to 2009. ROI generally followed operating income.

[8] A variance analysis is calculated in three parts, sales variance, cost of sales 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 (cost/expense) variance (in the case of the cost of sales 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-11
PVA: Value of assets used in production, warehousing, and sales, and return on investment, calendar years 2007-09

* * * * * * *

CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

U.S. producers' data on their capital expenditures, research and development ("R&D") expenses, and depreciation expenses for their operations on scope PVA and PVA are shown in table VI-12.

Table VI-12
PVA: U.S. firms' capital expenditures and research and development expenses, by firm, calendar years 2007-09, January-June 2009, and January-June 2010

* * * * * * *

Celanese's capital expenditures were ***.[9]

CAPITAL AND INVESTMENT

The Commission requested U.S. producers of scope PVA to describe any actual or potential negative effects of imports of scope PVA from Taiwan on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Their responses are shown below.

Actual Negative Effects

DuPont:

***.

Sekisui:

***.

Solutia:

***.

[9] See *Polyvinyl Alcohol from China, Japan, and Korea, Investigation Nos. 731-TA-1014, 1016, and 1017 (Review)*, staff report, memorandum INV-GG-O15, February 26, 2009, p. III-33.

Anticipated Negative Effects

DuPont:

***.

Sekisui:

***.

Solutia:

***.

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

The Commission analyzes a number of factors in making threat determinations (see 19 U.S.C. § 1677(7)(F)(i)). 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 and the global market.

THE INDUSTRY IN TAIWAN

Chang Chun is believed to be the only producer of scope PVA in Taiwan. In 2009, the quantity of Chang Chun's exports to the United States represented *** percent of its total shipments, *** the *** percent of Taiwan-produced scope PVA that it sold to the Taiwan market (table VII-1). In addition to exporting to the United States, Chang Chun's principal export markets include ***.

Chang Chun expanded its scope PVA capacity in Taiwan by *** percent in 2009. Its scope PVA production decreased by *** percent in that year. The increase in capacity, combined with the decrease in production, resulted in a decrease in Chang Chun's scope PVA capacity utilization ratio from *** percent in 2008 to *** percent in 2009. However, its capacity utilization rate was *** percent in January-June 2010, compared with *** percent in January-June 2009.[1]

Chang Chun has *** PVA production lines in Taiwan (it *** in 2009). It stated in its questionnaire response that it is *** to switch production between scope PVA and other products in response to a relative change in the price of PVA vis-a-vis the price of other products, using the same equipment and labor. PVA accounted for *** percent in Chang Chun's total sales in its most recent fiscal year. In addition to its operation in Taiwan, Chang Chun has the capability to produce PVA in China at Chang Chun Chemical (Jiangsu) Co., Ltd. Chang Chun reported that in 2009 its ***. Chang Chun *** other products in Taiwan or China on the same equipment and machinery used in the production of scope PVA. Chang Chun stated in its questionnaire response that it ***.

Table VII-1
Scope PVA: Data for the sole known producer in Taiwan, 2007-09, January-June 2009, January-June 2010, and projected 2010 and 2011

* * * * * * *

[1] Chang Chun considers itself to be operating "at full capacity now," stating that "We take the term production capacity to mean that maximum metric capacity of a production line. However, such capacity doesn't take into account the time we must spend to reconfigure a production line for purpose of switching from the production of one grade to another grade on the line . . . the difference between Chang Chun's reported productions *(sic)* versus production capacity figures should not be understood as unused capacity in the traditional sense." Hearing transcript, pp. 153-154 (Chen).

U.S. INVENTORIES OF SCOPE PVA FROM TAIWAN

Inventories held by U.S. importers of scope PVA from Taiwan were reported to be *** pounds in 2009 (table VII-2). The end-of-period level of inventories from Taiwan in 2009 represented a *** percent increase from the level of 2007, and the inventories from all other sources in 2009 represented a *** percent increase from 2007.

Table VII-2
Scope PVA: U.S. importers' reported end-of-period inventories of imports, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

U.S. IMPORTERS' CURRENT ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of scope PVA from Taiwan after June 30, 2010. Four importers (***) reported a total of *** pounds of orders to be delivered.

ANTIDUMPING INVESTIGATIONS IN THIRD-COUNTRY MARKETS

*** reported that the European Union conducted import relief investigations on imports of PVA from China and Taiwan in 2003.[2] Importers reported that Korea conducted import relief investigations on imports of PVA from China, Japan, Singapore, and the United States.[3]

On December 11, 2009, Korea terminated antidumping duty measures that it had imposed on December 12, 2006 on imports of polyvinyl alcohol from China, Singapore, and the United States.[4] Korea imposed an antidumping duty order on imports of polyvinyl alcohol from Japan on March 12, 2003,[5] but that order is no longer in effect.

On December 19, 2006, the European Union ("EU") initiated an antidumping proceeding with regard to imports of PVA from China.[6] On September 17, 2007, the EU imposed a provisional antidumping duty of 10.06 percent on imports from China and found no dumping by Taiwan.[7] On March 17, 2008, the EU terminated its antidumping proceeding concerning imports of PVA from China.[8]

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[2] ***'s importer questionnaire response; ***'s importer questionnaire response; and ***'s importer questionnaire response.

[3] ***'s importer questionnaire response; ***'s importer questionnaire response; and ***'s importer questionnaire response.

[4] See, e.g., WTO document, G/ADP/N/195/KOR, April 6, 2010.

[5] See, e.g., WTO document, G/ADP/N/105/KOR, August 15, 2003.

[6] EC Regulation No. C 311, December 19, 2006.

[7] EC Regulation No. 1069, September 17, 2007.

[8] EC Regulation No. 227, March 17, 2008.

INFORMATION ON NONSUBJECT COUNTRIES

Global Market

According to a published source, global capacity to produce "PVA"[9] at the end of 2009 was approximately *** MT (*** pounds), with an estimated *** percent located in Taiwan.[10] Table VII-3 presents capacity, production, trade and consumption data on a regional basis. ***.[11]

Table VII-3
PVA: World capacity, production, imports, exports, and consumption, 2009; consumption, 2014; and annual growth rate, 2009-14, by region/country

* * * * * * *

Table VII-4 presents export data by quantity, value, and average unit value for the larger producing countries compiled by Global Trade Atlas. Throughout this period, Taiwan and the United States have been among the largest exporters of PVA in the world.

[9] Chemcial Economics Handbook, SRI Consulting stated "***" *Polyvinyl Alcohols*, September 2010, *Chemical Economics Handbook*, SRI Consulting, pp. 580.1810 E.

[10] *Polyvinyl Alcohols*, September 2010, *Chemical Economics Handbook*, SRI Consulting, pp. 580.1810 E and 580.1812 I.

[11] *Polyvinyl Alcohols*, September 2010, *Chemical Economics Handbook*, SRI Consulting, pp. 580.1810 G and 580.1812 J.

Table VII-4
PVA: Global exports, by country, 2007-09, January-June 2009, and January-June 2010

Item	Calendar year			January-June	
	2007	2008	2009	2009	2010
	Quantity (*1,000 pounds*)				
Japan	186,385	146,129	168,255	73,898	100,557
Taiwan	164,446	149,054	139,681	54,221	88,627
United States	160,747	148,140	114,418	46,363	82,403
Singapore	106,570	86,462	83,098	([1])	([1])
China	66,193	92,840	65,168	30,149	48,879
Netherlands	46,537	51,323	37,732	20,591	25,448
Spain	47,381	41,715	36,755	17,092	18,402
Belgium	19,251	19,890	17,910	5,730	17,652
United Kingdom	19,006	18,303	16,801	8,170	10,143
Italy	21,903	12,282	9,885	5,053	5,300
France	11,821	15,580	7,848	2,919	7,549
Hong Kong	2,624	3,143	1,748	696	671
South Korea	22,643	20,377	1,562	1,455	185
Australia	411	1,157	1,128	([1])	([1])
Turkey	531	818	1,048	([1])	([1])
Greece	860	1,047	933	432	478
Brazil	254	167	851	795	87
Thailand	842	499	684	305	284
Canada	694	1,029	674	398	354
Austria	1,060	730	569	298	315
All other	3,908	5,293	2,717	537	681
Total	884,066	815,977	709,464	269,104	408,015

Table continued on next page.

Table VII-4--*Continued*
PVA: Global exports, by country, 2007-09 and January-June 2010

Item	Calendar year			January-June	
	2007	2008	2009	2009	2010
	Value (*1,000 dollars*)				
Japan	195,677	200,303	197,714	87,596	121,592
Taiwan	136,520	168,273	131,405	52,588	81,956
United States	134,236	167,834	114,204	49,596	78,836
Singapore	103,346	111,020	83,225	([1])	([1])
China	52,454	105,323	55,545	25,944	41,579
Netherlands	56,873	81,669	47,115	26,486	28,977
Spain	53,369	57,410	41,593	19,270	18,392
Belgium	21,608	25,574	21,076	7,590	19,370
United Kingdom	39,643	41,224	34,333	15,985	18,536
Italy	23,589	16,904	11,736	5,687	6,617
France	9,425	13,655	6,207	2,703	5,256
Hong Kong	3,126	4,116	2,367	795	1,046
South Korea	20,934	26,934	1,952	1,775	329
Australia	80	168	185	([1])	([1])
Turkey	527	700	815	([1])	([1])
Greece	372	551	394	181	209
Brazil	316	176	895	798	197
Thailand	833	601	749	347	315
Canada	772	1,305	688	434	256
Austria	1,578	1,365	993	476	526
All other	5,976	8,631	5,066	530	672
Total	861,255	1,033,736	758,257	298,781	424,660

Table continued on next page.

Table VII-4--*Continued*
PVA: Global exports, by country, 2007-09 and January-June 2010

Item	Calendar year			January-June	
	2007	2008	2009	2009	2010
	Unit value (*per pound*)				
Japan	$1.05	$1.37	$1.18	$1.19	$1.21
Taiwan	0.83	1.13	0.94	0.97	0.92
United States	0.84	1.13	1.00	1.07	0.96
Singapore	0.97	1.28	1.00	([1])	([1])
China	0.79	1.13	0.85	0.86	0.85
Netherlands	1.22	1.59	1.25	1.29	1.14
Spain	1.13	1.38	1.13	1.13	1.00
Belgium	1.12	1.29	1.18	1.32	1.10
United Kingdom	2.09	2.25	2.04	1.96	1.83
Italy	1.08	1.38	1.19	1.13	1.25
France	0.80	0.88	0.79	0.93	0.70
Hong Kong	1.19	1.31	1.35	1.14	1.56
South Korea	0.92	1.32	1.25	1.22	1.78
Australia	0.19	0.15	0.16	([1])	([1])
Turkey	0.99	0.86	0.78	([1])	([1])
Greece	0.43	0.53	0.42	0.42	0.44
Brazil	1.25	1.05	1.05	1.00	2.25
Thailand	0.99	1.20	1.10	1.14	1.11
Canada	1.11	1.27	1.02	1.09	0.72
Austria	1.49	1.87	1.75	1.60	1.67
All other	1.53	1.63	1.86	0.99	0.99
Total	0.97	1.27	1.07	1.11	1.04

[1] Unavailable.

Source: Global Trade Atlas, retrieved October 29, 2010.

APPENDIX A

FEDERAL REGISTER NOTICES

INTERNATIONAL TRADE COMMISSION

[Investigation No. 731–TA–1088 (Final)]

Polyvinyl Alcohol From Taiwan

AGENCY: United States International Trade Commission.

ACTION: Scheduling of the final phase of an antidumping investigation.

SUMMARY: The Commission hereby gives notice of the scheduling of the final phase of antidumping investigation No. 731–TA–1088 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) (the Act) to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of less-than-fair-value imports from Taiwan of polyvinyl alcohol, provided for in subheading 3905.30.00 of the Harmonized Tariff Schedule of the United States.[1]

For further information concerning the conduct of this phase of the investigation, hearing procedures, and rules of general application, consult the

[1] For purposes of this investigation, the Department of Commerce has defined the subject merchandise as all PVA hydrolyzed in excess of 80 percent, whether or not mixed or diluted with commercial levels of defoamer or boric acid. PVA in fiber form and PVB-grade low-ash PVA are not included in the scope of this investigation. PVB-grade low-ash PVA is defined to be PVA that meets the following specifications: Hydrolysis, Mole % of 98.40 ± 0.40, 4% Solution Viscosity 30.00 ± 2.50 centipois, and ash—ISE, wt% less than 0.60, 4% solution color 20mm cell, 10.0 maximum APHA units, haze index, 20mm cell, 5.0, maximum. The merchandise under investigation is currently classifiable under subheading 3905.30.00 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheading is provided for convenience and customs purposes, the written description of the merchandise under investigation is dispositive.

Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207).

DATES: *Effective Date:* September 13, 2010.

FOR FURTHER INFORMATION CONTACT: Angela M.W. Newell (202–708–5409), Office of Investigations, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its Internet server (*http://www.usitc.gov*). The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.*

SUPPLEMENTARY INFORMATION:

Background.—The final phase of this investigation is being scheduled as a result of an affirmative preliminary determination by the Department of Commerce that imports of polyvinyl alcohol from Taiwan are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. 1673b). The investigation was requested in a petition filed on September 7, 2004, by Celanese Chemicals, Ltd., Dallas, TX.

Participation in the investigation and public service list.—Persons, including industrial users of the subject merchandise and, if the merchandise is sold at the retail level, representative consumer organizations, wishing to participate in the final phase of this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in section 201.11 of the Commission's rules, no later than 21 days prior to the hearing date specified in this notice. A party that filed a notice of appearance during the preliminary phase of the investigation need not file an additional notice of appearance during this final phase. The Secretary will maintain a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigation.

Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list.—Pursuant to section 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in the final phase of this investigation available to authorized applicants under the APO issued in the investigation, provided that the application is made no later than 21 days prior to the hearing date specified in this notice. Authorized applicants must represent interested parties, as defined by 19 U.S.C. 1677(9), who are parties to the investigation. A party granted access to BPI in the preliminary phase of the investigation need not reapply for such access. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

Staff report.—The prehearing staff report in the final phase of this investigation will be placed in the nonpublic record on December 15, 2010, and a public version will be issued thereafter, pursuant to section 207.22 of the Commission's rules.

Hearing.—The Commission will hold a hearing in connection with the final phase of this investigation beginning at 9:30 a.m. on January 25, 2011, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before January 14, 2011. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on January 19, 2011, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by sections 201.6(b)(2), 201.13(f), and 207.24 of the Commission's rules. Parties must submit any request to present a portion of their hearing testimony *on camera* no later than 7 business days prior to the date of the hearing.

Written submissions.—Each party who is an interested party shall submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of section 207.23 of the Commission's rules; the deadline for filing is January 18, 2011. Parties may also file written testimony in connection with their presentation at the hearing, as provided in section 207.24 of the Commission's rules, and posthearing briefs, which must conform with the provisions of section 207.25 of the Commission's rules. The deadline for filing posthearing briefs is February 1, 2011; witness testimony must be filed no later than three days before the hearing. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation, including statements of support or opposition to the petition, on or before February 1, 2011. On February 16, 2011, the Commission will make available to parties all information on which they have not had an opportunity to comment. Parties may submit final comments on this information on or before February 18, 2011, but such final comments must not contain new factual information and must otherwise comply with section 207.30 of the Commission's rules. All written submissions must conform with the provisions of section 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of sections 201.6, 207.3, and 207.7 of the Commission's rules. The Commission's rules do not authorize filing of submissions with the Secretary by facsimile or electronic means, except to the extent permitted by section 201.8 of the Commission's rules, as amended, 67 FR 68036 (November 8, 2002). Even where electronic filing of a document is permitted, certain documents must also be filed in paper form, as specified in II (C) of the Commission's Handbook on Electronic Filing Procedures, 67 FR 68168, 68173 (November 8, 2002).

Additional written submissions to the Commission, including requests pursuant to section 201.12 of the Commission's rules, shall not be accepted unless good cause is shown for accepting such submissions, or unless the submission is pursuant to a specific request by a Commissioner or Commission staff.

In accordance with sections 201.16(c) and 207.3 of the Commission's rules, each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: This investigation is being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to section 207.21 of the Commission's rules.

By order of the Commission.

Issued: September 28, 2010.

Marilyn R. Abbott,

Secretary to the Commission.

[FR Doc. 2010–24793 Filed 10–1–10; 8:45 am]

BILLING CODE 7020–02–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–583–841]

Polyvinyl Alcohol From Taiwan: Final Determination of Sales at Less Than Fair Value

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (the Department) has determined that imports of polyvinyl alcohol (PVA) from Taiwan are being, or are likely to be, sold in the United States at less than fair value (LTFV), as provided in section 735 of the Tariff Act of 1930, as amended (the Act). The estimated margins of sales at LTFV are listed in the "Final Determination" section of this notice.

DATES: *Effective Date:* February 1, 2011.

FOR FURTHER INFORMATION CONTACT: Thomas Schauer or Richard Rimlinger, AD/CVD Operations, Office 5, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone (202) 482–0410 or (202) 482–4477, respectively.

SUPPLEMENTARY INFORMATION:

Applicable Statute and Regulations

Unless otherwise indicated, all citations to the Act or the Department's regulations, 19 CFR part 351, are to those provisions in effect on September 27, 2004, the date of initiation of this investigation.

Case History

On September 13, 2010, we published in the **Federal Register** our preliminary determination in the antidumping duty investigation of polyvinyl alcohol from Taiwan. See *Polyvinyl Alcohol From Taiwan: Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination,* 75 FR 55552 (September 13, 2010) (*Preliminary Determination*).

As provided in section 782(i) of the Act, we conducted sales and cost verifications of the questionnaire responses submitted by the sole respondent, Chang Chun Petrochemical Co., Ltd. (CCPC). We used standard verification procedures, including examination of relevant accounting and production records, as well as original source documents provided by CCPC. See Memorandum to the File entitled "Polyvinyl Alcohol from Taiwan: Sales Verification of Chang Chun Petrochemical Co., Ltd.," dated October 12, 2010, and Memorandum to Neal M. Halper entitled "Verification of the Cost of Production and Constructed Value Data Submitted by Chang Chun Petrochemical Co., Ltd., in the Antidumping Duty Investigation of Polyvinyl Alcohol from Taiwan" dated October 26, 2010. All verification reports are on file and available in the Central Records Unit (CRU), Room 7046, of the main Department of Commerce building.

We received case briefs submitted by Sekisui Specialty Chemicals America, LLC (the petitioner), and CCPC on November 2, 2010. The petitioner and CCPC submitted rebuttal briefs on November 8, 2010. We held a public hearing on December 1, 2010.

Period of Investigation

The period of investigation is July 1, 2003, through June 30, 2004.[1] This period corresponds to the four most recent fiscal quarters prior to the month of the filing of the petition, September 2004. See 19 CFR 351.204(b)(1).

Scope of the Investigation

The merchandise covered by this investigation is PVA. This product consists of all PVA hydrolyzed in excess of 80 percent, whether or not mixed or diluted with commercial levels of defoamer or boric acid. PVA in fiber form and PVB-grade low-ash PVA are not included in the scope of this investigation. PVB-grade low-ash PVA is defined to be PVA that meets the following specifications: Hydrolysis, Mole % of 98.40 +/− 0.40, 4% Solution Viscosity 30.00 +/− 2.50 centipois, and ash—ISE, wt% less than 0.60, 4% solution color 20mm cell, 10.0 maximum APHA units, haze index, 20mm cell, 5.0, maximum. The merchandise under investigation is currently classifiable under subheading 3905.30.00 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheading is provided for convenience and customs purposes, the written description of the merchandise under investigation is dispositive.

Analysis of Comments Received

All issues raised in the case and rebuttal briefs by parties to this antidumping investigation are addressed in the "Issues and Decision Memorandum for the Antidumping Investigation of Polyvinyl Alcohol from Taiwan" (Decision Memorandum) from Gary Taverman, Acting Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, to Christian Marsh, Acting Deputy Assistant Secretary for Import Administration, dated January 26, 2011, which is hereby adopted by this notice. A list of the issues which parties have raised and to which we have responded, all of which are in the Decision Memorandum, is attached to this notice as an appendix. Parties can find a complete discussion of all issues raised in this investigation and the corresponding recommendations in the Decision Memorandum which is on file in the CRU. In addition, a complete version of the Decision Memorandum can be accessed directly on the Web at *http://ia.ita.doc.gov/frn/index.html.* The paper copy and electronic version of the Decision Memorandum are identical in content.

Changes Since the Preliminary Determination

Based on our analysis of the comments received and our findings at the verifications, we have made certain changes to the margin calculation for CCPC. For a discussion of these changes, see Memorandum to the File entitled "Final Determination of Sales at Less Than Fair Value in the Antidumping Duty Investigation of Polyvinyl Alcohol from Taiwan—Analysis Memorandum for Chang Chun Petrochemical Co., Ltd.," dated January 26, 2011.

Cost of Production

As explained in the *Preliminary Determination* (75 FR at 55556), we conducted an investigation concerning sales at prices below the cost of production in the home market. We found that, for certain specific products, more than 20 percent of CCPC's home-market sales were at prices less than the cost of production and, in addition, such sales did not provide for the

[1] We initiated this investigation on September 27, 2004, but terminated it after the International Trade Commission's (ITC's) preliminary determination of no injury. We resumed this investigation after that determination was reversed upon remand. See *Preliminary Determination,* 75 FR at 55552, for full details of the history of this investigation.

recovery of costs within a reasonable period of time. Therefore, we disregarded these sales and used the remaining sales as the basis for determining normal value in accordance with section 773(b)(1) of the Act. Based on this test, for this final determination we have disregarded below-cost sales by CCPC.

Final Determination

The final antidumping duty margin is as follows:

Manufacturer/Exporter	Weighted-average margin (percent)
Chang Chun Petrochemical Co., Ltd.	3.08

Continuation of Suspension of Liquidation

Pursuant to section 735(c)(1)(B) of the Act, we will instruct U.S. Customs and Border Protection (CBP) to continue to suspend liquidation of all entries of PVA from Taiwan which were entered, or withdrawn from warehouse, for consumption on or after September 13, 2010, the date of publication of the *Preliminary Determination.* Effective upon publication of the final determination, we will instruct CBP to require a cash deposit or the posting of a bond equal to the weighted-average margins as follows: (1) The rate for CCPC will be 3.08 percent; (2) if the exporter is not a firm identified in this investigation but the producer is, the rate will be the rate established for the producer of the subject merchandise; (3) the rate for all other producers or exporters will be 3.08 percent, as discussed in the "All-Others Rate" section, below. These suspension-of-liquidation instructions will remain in effect until further notice.

All-Others Rate

Section 735(c)(5)(A) of the Act provides that the estimated all-others rate shall be an amount equal to the weighted average of the estimated weighted-average dumping margins established for exporters and producers individually investigated excluding any zero or *de minimis* margins and any margins determined entirely under section 776 of the Act. CCPC is the only respondent in this investigation for which the Department has calculated a company-specific rate. Therefore, for purposes of determining the all-others rate and pursuant to section 735(c)(5)(A) of the Act, we are using the weighted-average dumping margin calculated for CCPC, 3.08 percent. See, *e.g., Notice of Final Determination of Sales at Less Than Fair Value: Stainless Steel Sheet and Strip in Coils From Italy,* 64 FR 30750, 30755 (June 8, 1999), and *Coated Free Sheet Paper from Indonesia: Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination,* 72 FR 30753, 30757 (June 4, 2007) (unchanged in *Notice of Final Determination of Sales at Less Than Fair Value: Coated Free Sheet Paper from Indonesia,* 72 FR 60636 (October 25, 2007)).

Disclosure

We will disclose the calculations performed within five days of the date of publication of this notice to parties in this proceeding in accordance with 19 CFR 351.224(b).

ITC Notification

In accordance with section 735(d) of the Act, we have notified the ITC of our final determination. As our final determination is affirmative and in accordance with section 735(b)(2) of the Act, the ITC will determine, within 45 days, whether the domestic industry in the United States is materially injured, or threatened with material injury, by reason of imports or sales (or the likelihood of sales) for importation of the subject merchandise. If the ITC determines that such injury does exist, the Department will issue an antidumping duty order directing CBP to assess antidumping duties on all imports of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the effective date of the suspension of liquidation.

Notification Regarding APO

This notice also serves as a reminder to parties subject to administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305. Timely notification of the destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

This determination is issued and published pursuant to sections 735(d) and 777(i)(1) of the Act.

Dated: January 26, 2011.

Christian Marsh,

Acting Deputy Assistant Secretary for Import Administration.

Appendix—Issues in Decision Memorandum

1. Targeted Dumping
2. Product Characteristics
3. Date of Sale
4. Cost of Production

[FR Doc. 2011–2194 Filed 1–31–11; 8:45 am]

BILLING CODE 3510–DS–P

APPENDIX B

HEARING WITNESSES

CALENDAR OF THE COMMISSION'S HEARING

Those listed below appeared as witnesses at the United States International Trade Commission's hearing held in connection with the following investigation:

Polyvinyl Alcohol from Taiwan
Investigation No. 731-TA-1088 (Final)
January 25, 2011 - 9:30 am

The hearing was held in Room 101 (Main Hearing Room) of the United States International Trade Commission Building, 500 E Street, SW, Washington, DC.

IN SUPPORT OF THE IMPOSITION OF ANTIDUMPING DUTIES:

Gibson, Dunn & Crutcher LLP
Washington, DC
on behalf of

Sekisui Speciality Chemicals America, LLC

Scott R. Neuheardt, General Manager, Sekisui Speciality Chemicals America, LLC
Cory J. Sikora, Business Development Manager, Sekisui Speciality Chemicals America, LLC
Kenneth R. Button, Senior Vice President, Economic Consulting Services, LLC
Jennifer Lutz, Senior Economist, Economic Consulting Services, LLC

Richard B. Gabbert
Daniel J. Plaine
) – OF COUNSEL

IN OPPOSITION TO THE IMPOSITION OF ANTIDUMPING DUTIES:

Appleton Luff Pte. Ltd.
Washington, DC
on behalf of

Chang Chun Petrochemical Co. Ltd.
E.I. du Pont de Nemours and Company

Richard Chen, General Manager, Overseas Marketing Division, Chang Chun
Bruce Becker, Elvanol Polyvinyl Alcohol, DuPont
Michael Brisbon, Vinyls Demand Manager, DuPont
Richard R. Boyce, Economist, Econometrica International Inc.

Edmund W. Sim
Kelly A. Slater
) – OF COUNSEL

APPENDIX C

SUMMARY DATA

Table C-1
Scope PVA: Summary data concerning the U.S. market, 2007-09, January-June 2009, and January-June 2010

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Table C-2
PVB-grade PVA: Summary data concerning the U.S. market, 2007-09, January-June 2009, and January-June 2010

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Table C-3
Total PVA: Summary data concerning the U.S. market, 2007-09, January-June 2009, and January-June 2010

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Table C-4
Total PVA: Summary data concerning the U.S. market (using official Commerce statistics on imports), 2007-09, January-June 2009, and January-June 2010

(Quantity=1,000 pounds, value=1,000 dollars, unit values, unit labor costs, and unit expenses are per pound; period changes=percent, except where noted)

	Reported data					Period changes			
				January-June					Jan.-June
Item	2007	2008	2009	2009	2010	2007-09	2007-08	2008-09	2009-10
U.S. consumption quantity:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (1)	***	***	***	***	***	***	***	***	***
Importers' share (1):									
Taiwan	***	***	***	***	***	***	***	***	***
Other sources	***	***	***	***	***	***	***	***	***
Total imports	***	***	***	***	***	***	***	***	***
U.S. consumption value:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (1)	***	***	***	***	***	***	***	***	***
Importers' share (1):									
Taiwan	***	***	***	***	***	***	***	***	***
Other sources	***	***	***	***	***	***	***	***	***
Total imports	***	***	***	***	***	***	***	***	***
U.S. imports from:									
Taiwan:									
Quantity	26,127	33,733	17,781	7,483	13,139	-31.9	29.1	-47.3	75.6
Value	24,012	38,994	19,601	8,351	13,871	-18.4	62.4	-49.7	66.1
Unit value	$0.92	$1.16	$1.10	$1.12	$1.06	19.9	25.8	-4.6	-5.4
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All other sources (2):									
Quantity	28,136	21,551	25,102	10,353	13,780	-10.8	-23.4	16.5	33.1
Value	36,734	34,678	34,813	15,073	20,651	-5.2	-5.6	0.4	37.0
Unit value	$1.31	$1.61	$1.39	$1.46	$1.50	6.2	23.2	-13.8	2.9
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All sources:									
Quantity	54,263	55,284	42,882	17,835	26,919	-21.0	1.9	-22.4	50.9
Value	60,746	73,673	54,413	23,424	34,522	-10.4	21.3	-26.1	47.4
Unit value	$1.12	$1.33	$1.27	$1.31	$1.28	13.3	19.0	-4.8	-2.4
Ending inventory quantity	***	***	***	***	***	***	***	***	***
U.S. producers':									
Average capacity quantity	***	***	***	***	***	***	***	***	***
Production quantity	***	***	***	***	***	***	***	***	***
Capacity utilization (1)	***	***	***	***	***	***	***	***	***
U.S. shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Export shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Inventories/total shipments (1)	***	***	***	***	***	***	***	***	***
Production workers	***	***	***	***	***	***	***	***	***
Hours worked (1,000s)	***	***	***	***	***	***	***	***	***
Wages paid ($1,000s)	***	***	***	***	***	***	***	***	***
Hourly wages	***	***	***	***	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***	***	***	***	***
Unit labor costs	***	***	***	***	***	***	***	***	***
Net sales:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Cost of goods sold (COGS)	***	***	***	***	***	***	***	***	***
Gross profit or (loss)	***	***	***	***	***	***	***	***	***
SG&A expenses	***	***	***	***	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***	***	***	***	***
Capital expenditures	***	***	***	***	***	***	***	***	***
Unit COGS	***	***	***	***	***	***	***	***	***
Unit SG&A expenses	***	***	***	***	***	***	***	***	***
Unit operating income or (loss)	***	***	***	***	***	***	***	***	***
COGS/sales (1)	***	***	***	***	***	***	***	***	***
Operating income or (loss)/ sales (1)	***	***	***	***	***	***	***	***	***

(1) "Reported data" are in percent and "period changes" are in percentage points.
(2) The Customs data for All Other Sources presented here are higher than those based on questionnaire data presented earlier in this report because the Customs data include certain forms that are specifically excluded from the scope of these investigations such as polyvinyl alcohol in fiber form, PVB-grade PVA, and low-hydrolysis polyvinyl alcohol.

Note.--Financial data are reported on a fiscal year basis and may not necessarily be comparable to data reported on a calendar year basis. Because of rounding, figures may not add to the totals shown. Unit values and shares are calculated from the unrounded figures.

Source: Compiled from data submitted in response to Commission questionnaires and from official statistics of the U.S. Department of Commerce.

Table C-5
Scope PVA: Summary data concerning the U.S. open market, 2007-09, January-June 2009, and January-June 2010

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Table C-6
Total PVA: Summary data concerning the U.S. open market, 2007-09, January-June 2009, and January-June 2010

* * * * * * *

APPENDIX D

PRICE COMPARISONS AMONG THE U.S.-PRODUCED SCOPE PVA PRODUCTS AND THOSE IMPORTED FROM TAIWAN AND NONSUBJECT COUNTRIES

Selling price data were reported for scope PVA imported from five nonsubject countries, which involved products 1-3 and product 5 from China; products 1-4 from Germany; product 4 from Japan; products 1-5 from Singapore; and product 2 from Spain. Although not shown in tables, selling prices of the specified scope PVA products imported from China, Germany, Japan, and Spain were generally higher than selling prices of the products produced domestically and imported from Taiwan during January 2007-June 2010. Selling prices of the specified products imported from Singapore were generally lower than prices of the domestic products, but generally higher than prices of the products imported from Taiwan during January 2007-June 2010. The following tabulation presents the number of quarterly selling price comparisons showing under/overselling or where the prices were equal for the reported specified products imported from China, Germany, Japan, Singapore, and Spain vis-a-vis the products produced domestically and imported from Taiwan during January 2007-June 2010.

	Number of quarterly under/overselling based on price comparisons for all reported specified products from the following countries vis-a-vis the U.S. and Taiwan PVA products--									
	China		Germany			Japan	Singapore			Spain
Countries	Under-selling	Over-selling	Under-selling	Over-selling	Equal	Over-selling	Under-selling	Over-selling	Equal	Over-selling
United States	16	34	13	38	1	10	31	17	3	7
Taiwan	7	43	7	43	2	10	9	42	-	7
Total	23	77	20	81	3	20	40	59	3	14

Figures D-1 through D-5 show the quarterly net U.S. f.o.b. selling prices and quantities of the specified products 1-5, respectively, for domestic PVA, imported PVA from Taiwan, and, as applicable, imported PVA from China, Germany, Japan, Singapore, and Spain during January 2007-June 2010.

Figure D-1
Scope PVA: Net weighted-average U.S. f.o.b. selling prices and quantities of product 1 produced domestically, imported from Taiwan, and imported from China, Germany, and Singapore, by quarters, January 2007-June 2010

* * * * * * *

Figure D-2
Scope PVA: Net weighted-average U.S. f.o.b. selling prices and quantities of product 2 produced domestically, imported from Taiwan, and imported from China, Germany, Singapore, and Spain, by quarters, January 2007-June 2010

* * * * * * *

Figure D-3
Scope PVA: Net weighted-average U.S. f.o.b. selling prices and quantities of product 3 produced domestically, imported from Taiwan, and imported from China, Germany, and Singapore, by quarters, January 2007-June 2010

* * * * * * *

Figure D-4
Scope PVA: Net weighted-average U.S. f.o.b. selling prices and quantities of product 4 produced domestically, imported from Taiwan, and imported from Germany, Japan, and Singapore, by quarters, January 2007-June 2010

* * * * * * *

Figure D-5
Scope PVA: Net weighted-average U.S. f.o.b. selling prices and quantities of product 5 produced domestically, imported from Taiwan, and imported from China and Singapore, by quarters, January 2007-June 2010

* * * * * * *

APPENDIX E

COMPARISONS OF QUESTIONNAIRE SELLING PRICE DATA REPORTED BY SEKISUI FOR PVA PRODUCTS 1-5 PRODUCED DOMESTICALLY AND BY *** FOR PVA PRODUCTS 1-5 IMPORTED FROM TAIWAN

The reported quarterly price data of Sekisui's U.S.-produced products 1-5, *** imported Taiwan products 1-5, and *** imported Taiwan products 1-5, and price comparisons between the U.S.-produced and imported Taiwan products (the latter from each of the two importing firms) are shown, by product, in tables E-1 through E-5, respectively.

Seventy quarterly price comparisons were possible between Sekisui's U.S.-produced PVA products 1-5 and *** imported Taiwan PVA products 1-5 (tables E-1 through E-5). *** of the 70 price comparisons showed that the imported products were priced less than the domestic product, by margins ranging from ***. *** other price comparisons showed that the imported products were priced higher than the domestic product, by margins ranging from ***. *** showed that the domestic and imported product ***.[1] *** reported in its questionnaire response during the preliminary-phase investigation that, regarding PVA products 1-3 (which are used in adhesive applications),[2] the firm defines the adhesives market segment broadly and includes applications ranging from water soluble adhesives for paper laminating, to binders for ceiling tiles or ceramics, to products used in emulsion polymerization applications. ***. *** also asserted that price differences can be ***.

Sixty-eight quarterly price comparisons were possible between Sekisui's U.S.-produced PVA products 1-5 and *** imported Taiwan PVA products 1-5 (tables E-1 through E-5). *** of the 68 price comparisons showed the imported products to be priced less than the domestic products, by margins ranging from ***. *** other price comparisons showed the imported products to be priced higher than the domestic products, by margins ranging from ***, and ***.

Table E-1
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced PVA product 1 sold in bags to end users by Sekisui and imported PVA product 1 from Taiwan sold in bags to end users by *, and margins of underselling/(overselling), by quarters, January 2007-June 2010**

* * * * * * *

Table E-2
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced PVA product 2 sold in bags to end users by Sekisui and imported PVA product 2 from Taiwan sold in bags to end users by *, and margins of underselling/ (overselling), by quarters, January 2007-June 2010**

* * * * * * *

Table E-3
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced PVA product 3 sold in bags to end users by Sekusui and imported PVA product 3 from Taiwan sold in bags to end users by *, and margins of underselling/(overselling), by quarters, January 2001-June 2004**

* * * * * * *

[1] ***.

[2] Price comparisons involving *** of *** imported products vis-a-vis prices of the domestic products.

Table E-4
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced PVA product 4 sold in bags to end users by Sekusui and imported PVA product 4 from Taiwan sold in bags to end users by *, and margins of underselling/(overselling), by quarters, January 2001-June 2004**

* * * * * * *

Table E-5
Scope PVA: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced PVA product 5 sold in bags to end users by Sekisui and imported PVA product 5 from Taiwan sold in bags to end users by *, and margins of underselling/(overselling), by quarters, January 2007-June 2010**

* * * * * * *