

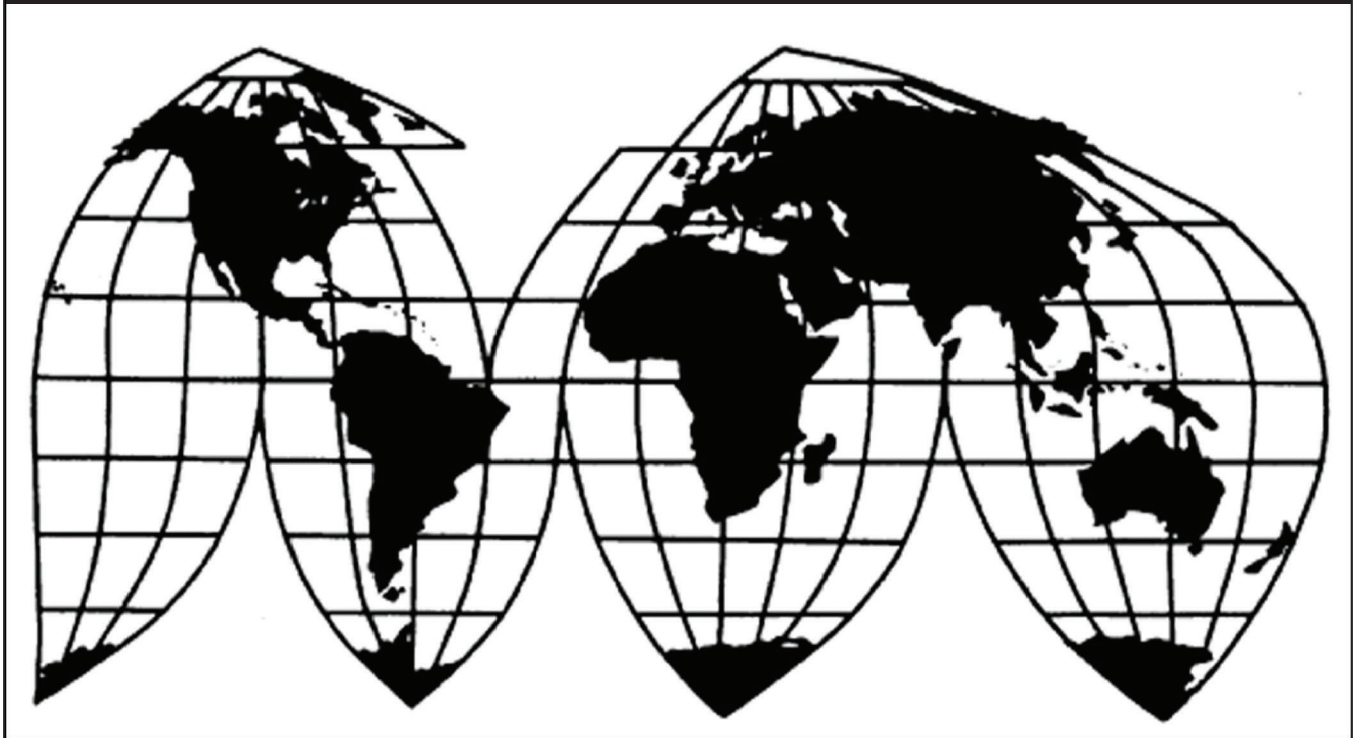
Ceramic Tile from China

Investigation Nos. 701-TA-621 and 731-TA-1447 (Preliminary)

Publication 4898

June 2019

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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Note.—Information that would reveal confidential operations of individual concerns may not be published. Such information is identified (including by brackets or by parallel lines) in confidential reports and is deleted and replaced with asterisks (***) in public reports.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-621 and 731-TA-1447 (Preliminary)

Ceramic Tile from China

DETERMINATIONS

On the basis of the record¹ developed in the subject investigations, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of ceramic tile from China, provided for in subheadings 6907.21.10, 6907.21.20, 6907.21.30, 6907.21.40, 6907.21.90, 6907.22.10, 6907.22.20, 6907.22.30, 6907.22.40, 6907.22.90, 6907.23.10, 6907.23.20, 6907.23.30, 6907.23.40, 6907.23.90, 6907.30.10, 6907.30.20, 6907.30.30, 6907.30.40, 6907.30.90, 6907.40.10, 6907.40.20, 6907.40.30, 6907.40.40, and 6907.40.90 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value (“LTFV”) and to be subsidized by the government of China.²

COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

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

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 84 FR 20093 and 84 FR 20101 (May 8, 2019).

BACKGROUND

On April 10, 2019, the Coalition for Fair Trade in Ceramic Tile filed a petition with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of imports of ceramic tile from China sold in the United States at LTFV and subsidized by the government of China. Accordingly, effective April 10, 2019, the Commission, pursuant to sections 703(a) and 733(a) of the Act (19 U.S.C. 1671b(a) and 1673b(a)), instituted countervailing duty investigation No. 701-TA-621 and antidumping duty investigation No. 731-TA-1447 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of April 16, 2019 (84 FR 15637). The conference was held in Washington, DC, on May 1, 2019, and all persons who requested the opportunity were permitted to appear in person or by counsel.

Views of the Commission

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

I. The Legal Standard for Preliminary Determinations

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

II. Background

Parties to the investigation. The Coalition for Fair Trade in Ceramic Tile (“Petitioner”), a group of U.S. producers of ceramic tile, filed the petitions in these investigations on April 10, 2019.³ The Petitioner appeared at the staff conference and submitted a postconference brief.

A number of respondent entities have participated in these investigations. The following importers of subject merchandise participated in the staff conference and submitted a joint postconference brief: Anatolia Tile & Stone, Inc., Arizona Tile, Bedrosians Tile and Stone, G.B.I. Stone & Tile, Inc., Jeffrey Court, Inc., M S International, Style Access, LLC, and Surfaces, Inc. (collectively the “Joint Respondents”). Guangdong Kito Ceramics Group Co., Ltd. (“Kito”), a Chinese producer and exporter of subject merchandise, also participated in the staff conference and submitted a postconference brief.

¹ 19 U.S.C. §§ 1671b(a), 1673b(a) (2000); *see also American Lamb Co. v. United States*, 785 F.2d 994, 1001-04 (Fed. Cir. 1986); *Aristech Chem. Corp. v. United States*, 20 CIT 353, 354-55 (1996). No party argues that the establishment of an industry in the United States is materially retarded by the allegedly unfairly traded imports.

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

³ The Coalition consists of American Wonder Porcelain (“American Wonder”), Crossville, Inc., Dal-Tile Corp. (“Dal-Tile”) (part of Mohawk Industries (“Mohawk”)), Del Conca USA, Inc., (“Del Conca”), Florida Tile, Inc., Florim USA, Landmark Ceramics, and StonePeak Ceramics.

Data Coverage. Except as noted, U.S. industry data are based on questionnaire responses of nine firms that accounted for the vast majority of U.S. production of ceramic tile during 2018. U.S. import data are based on official Commerce statistics and questionnaire responses from 39 firms that account for approximately 61.9 percent by quantity of subject imports and approximately 49.6 percent by quantity of imports from nonsubject sources in 2018.⁴ Data on foreign producers of subject merchandise are based on questionnaire responses from six producers and seven resellers that exported to the United States, whose exports accounted for approximately 16.5 percent of subject imports in 2018.⁵

III. Domestic Like Product

In determining whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the “domestic like product” and the “industry.”⁶ Section 771(4)(A) of the Tariff Act of 1930, as amended (“the Tariff Act”), defines the relevant domestic industry as the “producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”⁷ In turn, the Tariff Act defines “domestic like product” as “a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation.”⁸

The decision regarding the appropriate domestic like product 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.⁹ No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.¹⁰ The Commission looks for clear dividing lines among

⁴ Confidential Report, Memorandum INV-RR-043 (May 20, 2019) (“CR”) at I-5; Public Report, *Ceramic Tile from China*, Inv. Nos. 701-TA-621 and 731-TA-1447 (Preliminary), USITC Pub. 4898 (June 2019) (“PR”) at I-4.

⁵ CR at VII-4; PR at VII-3.

⁶ 19 U.S.C. § 1677(4)(A).

⁷ 19 U.S.C. § 1677(4)(A).

⁸ 19 U.S.C. § 1677(10).

⁹ 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).

¹⁰ See, e.g., S. Rep. No. 96-249 at 90-91 (1979).

possible like products and disregards minor variations.¹¹ Although the Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value,¹² the Commission determines what domestic product is like the imported articles Commerce has identified.¹³ The Commission may, where appropriate, include domestic articles in the domestic like product in addition to those described in the scope.¹⁴

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

... ceramic flooring tile, wall tile, paving tile, hearth tile, porcelain tile, mosaic tile, flags, finishing tile, and the like (hereinafter ceramic tile). Ceramic tiles are articles containing a mixture of minerals including clay (generally hydrous silicates of alumina or magnesium) that are fired so the raw materials are fused to produce a finished good that is less than 3.2cm in actual thickness. All ceramic tile is subject to the scope regardless of end use, surface area, and weight, regardless of whether the tile is glazed or unglazed, regardless of the water absorption coefficient by weight, regardless of the extent of the vitrification, and regardless of whether or not the tile is on a backing. Subject merchandise includes ceramic tile with decorative features that may in spots exceed 3.2cm in thickness and includes ceramic tile "slabs" or "panels" (tile that are larger than 1 square meter (11 square feet)).

Subject merchandise includes ceramic tile that undergoes minor processing in a third country prior to importation into the United States. Similarly, subject

¹¹ See, e.g., *Nippon*, 19 CIT at 455; *Torrington*, 747 F. Supp. at 748-49; see also S. Rep. No. 96-249 at 90-91 (Congress has indicated that the like product standard should not be interpreted in "such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other, nor should the definition of 'like product' be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.").

¹² See, e.g., *USEC, Inc. v. United States*, 34 Fed. App'x 725, 730 (Fed. Cir. 2002) ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); *Algoma Steel Corp. v. United States*, 688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), *aff'd*, 865 F.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

¹³ *Hosiden Corp. v. Advanced Display Mfrs.*, 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *Torrington*, 747 F. Supp. at 748-52 (affirming the Commission's determination defining six like products in investigations where Commerce found five classes or kinds).

¹⁴ See, e.g., *Pure Magnesium from China and Israel*, Inv. Nos. 701-TA-403 and 731-TA-895-96 (Final), USITC Pub. 3467 at 8 n.34 (Nov. 2001); *Torrington*, 747 F. Supp. at 748-49 (holding that the Commission is not legally required to limit the domestic like product to the product advocated by the petitioner, co-extensive with the scope).

merchandise includes ceramic tile produced that undergoes minor processing after importation into the United States. Such minor processing includes, but is not limited to, one or more of the following: beveling, cutting, trimming, staining, painting, polishing, finishing, additional firing, or any other processing that would otherwise not remove the merchandise from the scope of investigations if performed in the country of manufacture of the in-scope product.

Subject merchandise is currently classified in the Harmonized Tariff Schedule of the United States (“HTSUS”) under the following subheadings of 6907:

6907.21.1005, 6907.21.1011, 6907.21.1051, 6907.21.2000, 6907.21.3000, 6907.21.4000, 6907.21.9011, 6907.21.9051, 6907.22.1005, 6907.22.1011, 6907.22.1051, 6907.22.2000, 6907.22.3000, 6907.22.4000, 6907.22.9011, 6907.22.9051, 6907.23.1005, 6907.23.1011, 6907.23.1051, 6907.23.2000, 6907.23.3000, 6907.23.4000, 6907.23.9011, 6907.23.9051, 6907.30.1005, 6907.30.1011, 6907.30.1051, 6907.30.2000, 6907.30.3000, 6907.30.4000, 6907.30.9011, 6907.30.9051, 6907.40.1005, 6907.40.1011, 6907.40.1051, 6907.40.2000, 6907.40.3000, 6907.40.4000, 6907.40.9011, and 6907.40.9051. Subject merchandise may also enter under subheadings of headings 6914 and 6905: 6914.10.8000, 6914.90.8000, 6905.10.0000, and 6905.90.0050. The HTSUS subheadings are provided for convenience and customs purposes only. The written description of the scope of these investigations is dispositive.¹⁵

Ceramic tile is a masonry product made from clay and various other materials, which is fired at high temperatures to create flat tiles that are suitable for covering surfaces.¹⁶ Ceramic tile is available in many shapes, sizes, colors (including solid colors, designs, and digital printing), and specifications.¹⁷ It is used in the residential and commercial sector to cover surfaces, including floors, walls, counters, and swimming pools, among others.¹⁸ Ceramic tile used as “floor tile” or “wall tile” requires different specifications, with floor tile generally requiring greater strength and durability while wall tile tends to be thinner to adhere more readily to walls.¹⁹ Ceramic tile includes numerous varieties such as finishing tile (tile in shapes such as corners or molding that allow installation to cover all desired surfaces), decorative/mosaic tile (tile cut into chips and designs that are installed into larger compositions), and porcelain

¹⁵ *Ceramic Tile from the People’s Republic of China: Initiation of Countervailing Duty Investigation*, 84 Fed. Reg. 20,101 (May 8, 2019); see also *Ceramic Tile from the People’s Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 84 Fed. Reg. 20,093 (May 8, 2019).

¹⁶ CR at I-12-13; PR at I-10.

¹⁷ CR at I-12-14; PR at I-10-14.

¹⁸ CR at I-13; PR at I-10.

¹⁹ CR at I-13-14; PR at I-10-11.

ceramic tile (tile made to higher water absorption requirements).²⁰ Ceramic tile surfaces may also be glazed or unglazed, depending on the intended final end-use application.²¹

A. Arguments of the Parties

The Petitioner advocates that the Commission define a single domestic like product, coextensive with the scope of these investigations.²² While Joint Respondents take no position on the definition of domestic like product for purposes of these preliminary determinations, they present arguments based on the Commission's domestic like product criteria to argue that there are clear dividing lines between mosaic tile and flooring tile.²³

B. Analysis and Conclusions

For the reasons explained below, we define a single domestic like product coextensive with the scope of investigations.

Physical Characteristics and Uses. Ceramic tile is a masonry product made from a mixture of clay, silica, feldspar, and other raw materials.²⁴ All varieties share basic characteristics, including being flat and often with beveled edges, while varying in specific sizes (including surface area and thickness), shapes, and colors.²⁵ All varieties of ceramic tile are used in the residential and commercial sectors to cover surfaces, although some applications may require particular performance requirements.²⁶

²⁰ CR at I-13-16; PR at I-10-12.

²¹ CR at I-16-17; PR at I-12.

²² Petitioner's Br. at 6-9.

²³ Joint Respondents' Br. at 4-5; Conference Tr. at 164-68 (Kostrzewa). Notwithstanding Joint Respondents' framing of the distinctness of mosaic tiles relative to flooring tiles in terms of clear dividing lines, their argument appears to be one of attenuated competition, not domestic like product. For instance, they assert that there is no U.S. production of the type of mosaic tile that they import. *See, e.g.*, Conference Tr. at 133 (Bedrosian) (asserting that mosaic tiles "are not produced in the United States by any of the Petitioners"); Conference Tr. at 189-91 (Bedrosian) (indicating differences in types of mosaic tile manufactured by U.S. producers versus subject merchandise); Conference Tr. at 192-93 (Hansen). Furthermore, they compare mosaic tiles only with a subset of other ceramic tiles subject to investigation (*e.g.*, flooring tiles), while not addressing whether there are clear dividing lines with other articles subject to investigation (*e.g.*, non-mosaic wall tiles). Joint Respondents' Br. at Exhs. 1, 11-12 & 18 (defining market segments of ceramic tile); Conference Tr. at 164-168 (Kostrzewa) (comparing mosaic tile and flooring tile). Accordingly, the Joint Respondents' argument does not provide a basis to define a separate domestic like product for mosaic tiles. *See, e.g., Hitachi Metals Ltd. v. United States*, 350 F. Supp. 3d 1325, 1330 (Ct. Int'l Trade 2018).

²⁴ Petitioner's Br. at 7.

²⁵ CR at I-12-13; PR at I-10.

²⁶ CR at I-13-16; PR at I-10-11; Petitioner's Br. at 7.

Interchangeability. The Petitioner asserts that within customer requirements for specific applications, ceramic tile is generally interchangeable.²⁷ Some applications require distinct performance requirements that may limit interchangeability of certain types of ceramic tile; in particular, porcelain and non-porcelain ceramic tile may not be interchangeable in some applications.²⁸ Nonetheless, both the Petitioner and Joint Respondents indicate that some varieties of ceramic tile are made to satisfy multiple performance requirements, and can be used across different applications.²⁹

Manufacturing Facilities, Production Processes and Employees. Manufacturing of ceramic tile generally involves the same basic manufacturing processes, which includes the crushing of raw materials, mixing and milling, spray drying, shaping, drying, glazing and/or digital printing, firing, and post-firing operations.³⁰ Certain types of ceramic tile may entail variations in some of these production stages; for example, porcelain ceramic tile requires firing at higher temperatures for longer times,³¹ and mosaic tile requires more labor-intensive sorting in post-firing operations.³² Further, while some U.S. producers' operations are designed to make ceramic tile only from certain raw materials,³³ other U.S. producers maintain operations capable of manufacturing multiple varieties of ceramic tile at the same facilities, using the same equipment, and with the same employees.³⁴

Channels of Distribution. U.S. producers reported shipping ceramic tile to distributors, retailers, and end users.³⁵ The Petitioner indicates that all varieties of ceramic tile share these channels of distribution.³⁶

Producer and Customer Perceptions. Witnesses at the staff conference testified that once a customer selects an aesthetic design, customers regard ceramic tile as a commodity

²⁷ Petitioner's Br. at 8.

²⁸ CR at I-13-16; PR at I-10-11 (discussing different physical performance requirements for varieties of ceramic tile, such as floor tile, wall tile, and porcelain ceramic tile); *see also* CR at II-17; PR at II-11 (noting that non-porcelain ceramic tile may not be suitable for outdoor applications because of the necessary tolerance for temperature ranges in such applications).

²⁹ Petitioner's Br. at Att. A, 1-2 (noting that many ceramic tiles are labeled "floor and wall tile," indicating that they are made to stricter requirements for floor tile but can be used for either application); Joint Respondents' Br. at Exh. 1, 4 (acknowledging that mosaic tile may be used as flooring tile, and vice versa).

³⁰ CR at I-17-21; PR at I-13-15.

³¹ CR at I-16; PR at I-12; Conference Tr. at 68-69 (Baran).

³² CR at I-15; PR at I-11.

³³ Conference Tr. at 66-67 (Curran) (indicating that its firm's production facilities cannot mix raw materials from "white body" and "red body" clay).

³⁴ Conference Tr. at 67-68 (Astrachan) (indicating that production processes vary between different U.S. producers); Petitioner's Br. at 9 (asserting that for some U.S. producers all varieties of ceramic tile are made at the same facilities, using the same equipment, and with the same employees).

³⁵ CR/PR at Table II-2.

³⁶ Petitioner's Br. at 8; Conference Tr. at 42 (Haynes).

product, irrespective of brand.³⁷ The Petitioner argues that producers and customers perceive varieties of ceramic tile with similar sizes and design to be similar.³⁸ While customers may perceive porcelain ceramic tile with a “certain cachet,” witnesses acknowledged that there was confusion among customers as to which products actually constitute porcelain ceramic tile.³⁹ U.S. producers, on the other hand, testified that they perceived porcelain ceramic tile as a subset of ceramic tile that meets specific water absorption specifications.⁴⁰

Price. The Petitioner argues that prices for ceramic tile vary depending on size, thickness, design, and other factors.⁴¹ Available record evidence in this preliminary phase indicates differences in price for certain varieties of ceramic tile. For instance, porcelain ceramic tile’s higher manufacturing costs and stringent water absorption specifications appear to support higher prices for this product relative to non-porcelain ceramic tile.⁴² Although differences in volume, size, and type of customer may impact prices, the Commission pricing data for product 4 (non-porcelain ceramic tile) generally exhibited higher prices than products 1 and 2 (porcelain ceramic tile).⁴³ Firms also reported that variations in average unit values (“AUVs”) within certain pricing products in the pricing data resulted from higher prices for decorative and mosaic tiles, which were included together with other varieties of ceramic tile within the pricing product definitions.⁴⁴

Conclusion. Based on the record in the preliminary phase of these investigations, we define a single domestic like product that is coextensive with the scope of these investigations, consisting of all ceramic tile. All ceramic tile share similar physical characteristics, end-uses, and channels of distribution, and multiple varieties may also use common production facilities, processes, and employees. Although there are some distinctions between porcelain ceramic tile and non-porcelain ceramic tile, the record of the preliminary phase in these investigations does not support that such distinctions amount to clear dividing lines. Available pricing data indicate a range of prices for ceramic tile products, but do not precisely indicate the degree to which the prices vary based on different criteria. The record further indicates that while some varieties of ceramic tile are not interchangeable based on performance requirements for specific applications, other varieties of ceramic tile are made to multiple specifications that allow for greater interchangeability across applications.

In conclusion, we define a single domestic like product that is coextensive with the scope of the investigations for the purposes of these preliminary determinations. In any final phase of these investigations, we invite parties to identify any proposed domestic like products

³⁷ Conference Tr. at 42 (Haynes).

³⁸ Petitioner’s Br. at 8.

³⁹ Conference Tr. at 74 (Astrachan) & 76 (Mattioli).

⁴⁰ Conference Tr. at 75-76 (Astrachan). Witnesses also indicated U.S. producers have made efforts to educate customers regarding the specifications of porcelain ceramic tile so as to distinguish it from mislabeled products in the market. *Id.* at 74 (Astrachan).

⁴¹ Petitioner’s Br. at 9.

⁴² CR at I-16; PR at I-12; *see also* Petitioner’s Br. at 15-16 & Att. A, 12-14.

⁴³ CR/PR at Table V-12; *see also* CR at V-7; PR at V-5.

⁴⁴ CR at V-8 n.12; PR at V-6 n.12.

in their comments on the Commission's draft questionnaires, and specify with particularity those products for which they seek the Commission to collect separate data.⁴⁵

IV. Domestic Industry and Related Parties

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes 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 domestic like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to Section 771(4)(B) of the Tariff Act.⁴⁷ This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.⁴⁸ Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.⁴⁹ These investigations raise multiple related party issues for the Commission to consider. Three domestic producers directly imported subject merchandise during the January 2016 through December 2018 period of investigation ("POI"), making them related parties; in addition, one of these firms is affiliated

⁴⁵ See 19 C.F.R. § 207.20(b); see also *53-Foot Domestic Dry Containers from China*, Inv. Nos. 701-TA-514 and 731-TA-1250 (Final), USITC Pub. 4537 at 7-8 (June 2015) (declining to consider domestic like product argument that was untimely raised).

⁴⁶ 19 U.S.C. § 1677(4)(A).

⁴⁷ 19 U.S.C. § 1677(4)(B).

⁴⁸ See *Torrington Co. v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int'l Trade 1992), *aff'd without opinion*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331-32 (Ct. Int'l Trade 1989), *aff'd mem.*, 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987).

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 (whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market);
- (3) whether inclusion or exclusion of the related party will skew the data for the rest of the industry;
- (4) the ratio of import shipments to U.S. production for the imported product; and
- (5) whether the primary interest of the importing producer lies in domestic production or importation.

Changzhou Trina Solar Energy Co. v. USITC, 100 F. Supp.3d 1314, 1326-31 (Ct. Int'l. Trade 2015); see also *Torrington Co. v. United States*, 790 F. Supp. at 1168.

with a Chinese producer and exporter of subject merchandise, and one of these firms is related to a U.S. importer of subject merchandise.⁵⁰

Petitioner argues that the Commission should define the domestic industry as its constituent members and not exclude any firm pursuant to the related parties provision.⁵¹ Joint Respondents argue that U.S. producer *** should be excluded from the domestic industry pursuant to the related parties provision, noting that this firm (i) is a major importer of subject merchandise, (ii) ***, and (iii) has benefitted from its importation of subject merchandise.⁵² As explained below, we define the domestic industry to include all U.S. producers of the domestic like product.

***. *** is a *** U.S. producer, which accounted for *** percent of U.S. production in 2018, and is a petitioner.⁵³ It is ***.⁵⁴ It ***; its U.S. production ***.⁵⁵ While it imported subject merchandise from China each year of the POI, these volumes *** in 2018 as its domestic production ***.⁵⁶ Its subject imports as a share of U.S. production peaked in 2017 at *** percent and declined to *** percent in 2018.⁵⁷ *** reported that it imported subject merchandise during the POI ***.⁵⁸

While *** only ***, its imports of subject merchandise ***, and in *** its U.S. production exceeded its volume of subject imports. Based on the record, *** primary interest has shifted to domestic production during the POI. It also reported *** capital expenditures among domestic producers in 2017 and 2018.⁵⁹ Moreover, it does not appear that its domestic production operations benefitted from its importation of subject merchandise.⁶⁰ Accordingly, we find that appropriate circumstances do not exist to exclude it from the domestic industry as a related party.

***. *** is *** U.S. producer of ceramic tile, accounting for *** percent of U.S. production in 2018, and is a petitioner.⁶¹ It reported imports of subject merchandise from China that totaled *** square feet in 2016, *** square feet in 2017, and *** square feet in 2018.⁶² Its subject imports as a share of U.S. production peaked at *** percent in 2016, and

⁵⁰ CR/PR at Table III-8. The three producers are ***, ***, and ***. *Id.*; see also CR/PR at Table III-2 (showing ***, and ***).

⁵¹ Petitioner's Br. at 10-12.

⁵² Joint Respondents' Br. at 5.

⁵³ CR/PR at Table III-1. ***.

⁵⁴ CR/PR at Table III-2. *** parent company is ***. *Id.*

⁵⁵ CR/PR at Table III-4; see also CR at Table III-5. *** U.S. production was *** square feet in 2016, *** square feet in 2017, and *** square feet in 2018. *Id.*

⁵⁶ CR/PR at Table III-8. *** imports of subject merchandise totaled *** square feet in 2016, *** square feet in 2017, and *** square feet in 2018. *Id.*

⁵⁷ CR/PR at Table III-8.

⁵⁸ CR/PR at Table III-8.

⁵⁹ CR/PR at Table VI-4.

⁶⁰ CR/PR at Table F-1.

⁶¹ CR/PR at Table III-1.

⁶² CR/PR at Table III-8.

was lower in subsequent years.⁶³ It ***.⁶⁴ It reported importing subject merchandise so that it could offer ***.⁶⁵

*** is the *** of ceramic tile, and its domestic production far surpasses its imports of subject merchandise. It increased *** during the POI, and there is no indication that its domestic operations benefitted from its importation of subject merchandise. The record indicates that its primary interest lies in domestic production rather than importation. Thus, we find that appropriate circumstances do not exist to exclude it from the domestic industry as a related party.

***. *** is a *** U.S. producer, accounting for *** percent of U.S. production in 2018, and *** the petitions.⁶⁶ Its imports of subject merchandise from China were *** square feet in 2016, *** square feet in 2017, and *** square feet in 2018.⁶⁷ As a ratio to its U.S. production, its subject imports were *** percent in 2016 and 2017, and increased to *** percent in 2018.⁶⁸ In explaining its reasons for importing subject merchandise, *** reported that ***.⁶⁹

While *** imports of subject merchandise increased over the POI, its domestic production nonetheless exceeded its volume of subject imports throughout the period. Further, its importation appears to ***, which indicates that its primary interest lies in domestic production. Accordingly, we find that appropriate circumstances do not exist to exclude it from the domestic industry.

In light of our findings with regard to domestic like product and related parties, we define the domestic industry as all domestic producers of ceramic tile.

V. Reasonable Indication of Material Injury by Reason of Subject Imports⁷⁰

A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United

⁶³ CR/PR at Table III-8. Its subject imports as a share of U.S. production were *** percent in 2017 and *** percent in 2018. *Id.*

⁶⁴ CR/PR at Table III-4.

⁶⁵ CR/PR at Table III-8.

⁶⁶ CR/PR at Table III-1.

⁶⁷ CR/PR at Table III-8.

⁶⁸ CR/PR at Table III-8.

⁶⁹ CR/PR at Table III-8.

⁷⁰ Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product shall be deemed negligible if they account for less than three percent (or four percent in the case of a developing country in a countervailing duty investigation) of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition. *See* 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B); *see also* 15 C.F.R. § 2013.1 (developing countries for purposes of 19 U.S.C. § 1677(36)). The record indicates that subject imports of ceramic tile from China exceeded the requisite statutory threshold. Based on official import statistics, subject imports accounted for 29.5 percent by quantity of

States is materially injured or threatened with material injury by reason of the imports under investigation.⁷¹ 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.⁷² The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.”⁷³ In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.⁷⁴ 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.”⁷⁵

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is “materially injured by reason of” unfairly traded imports,⁷⁶ it does not define the phrase “by reason of,” indicating that this aspect of the injury analysis is left to the Commission’s reasonable exercise of its discretion.⁷⁷ 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.⁷⁸

total imports of ceramic tile from April 2018 through March 2019. CR/PR at Table IV-4. Consequently, we find that subject imports of ceramic tile from China are not negligible.

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

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

⁷³ 19 U.S.C. § 1677(7)(A).

⁷⁴ 19 U.S.C. § 1677(7)(C)(iii).

⁷⁵ 19 U.S.C. § 1677(7)(C)(iii).

⁷⁶ 19 U.S.C. §§ 1671b(a), 1673b(a).

⁷⁷ *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).

⁷⁸ The Federal Circuit, in addressing the causation standard of the statute, has observed that “{a}s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement.” *Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was re-affirmed in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), in which the Federal Circuit, quoting *Gerald Metals, Inc. v. United States*, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that “this court requires evidence in the record ‘to show that the harm occurred “by reason of” the LTFV imports, not by reason of a minimal or tangential contribution to

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.⁷⁹ In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.⁸⁰ Nor does the “by reason of” standard require that unfairly traded imports be the “principal” cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.⁸¹ It is clear

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).

⁷⁹ Uruguay Round Agreements Act Statement of Administrative Action (“SAA”), H.R. Rep. 103-316, Vol. I at 851-52 (1994) (“{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.”); S. Rep. 96-249 at 75 (1979) (the Commission “will consider information which indicates that harm is caused by factors other than less-than-fair-value imports.”); H.R. Rep. 96-317 at 47 (1979) (“in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;” those factors include “the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry”); *accord Mittal*, 542 F.3d at 877.

⁸⁰ SAA at 851-52 (“{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports.”); *Taiwan Semiconductor*, 266 F.3d at 1345. (“{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.” (emphasis in original)); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int’l Trade 2002) (“{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury” or make “bright-line distinctions” between the effects of subject imports and other causes.); see also *Softwood Lumber from Canada*, Inv. Nos. 701-TA-414 and 731-TA-928 (Remand), USITC Pub. 3658 at 100-01 (Dec. 2003) (Commission recognized that “{i}f an alleged other factor is found not to have or threaten to have injurious effects to the domestic industry, *i.e.*, it is not an ‘other causal factor,’ then there is nothing to further examine regarding attribution to injury”), citing *Gerald Metals*, 132 F.3d at 722 (the statute “does not suggest that an importer of LTFV goods can escape countervailing duties by finding some tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.”).

⁸¹ S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

that the existence of injury caused by other factors does not compel a negative determination.⁸²

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.”⁸³ Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”⁸⁴

The Federal Circuit’s decisions in *Gerald Metals*, *Bratsk*, and *Mittal* all involved cases in which the relevant “other factor” was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit’s guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.⁸⁵ 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* litigation.

Mittal clarifies that the Commission’s interpretation of *Bratsk* was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have “evidence in the record ‘to show that the harm occurred ‘by reason of’ the LTFV imports,’” and requires that the Commission not attribute injury from nonsubject imports or other factors to subject imports.⁸⁶ Accordingly, in view of *Mittal*, we are not required to apply the replacement/benefit test that was included in Commission opinions subsequent to *Bratsk*.

⁸² See *Nippon*, 345 F.3d at 1381 (“All parties agree 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.”).

⁸³ *Mittal*, 542 F.3d at 877-78; see also *id.* at 873 (“While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured ‘by reason of’ subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.”) citing *United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in *Swift-Train v. United States*, 792 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission’s causation analysis as comporting with the Court’s guidance in *Mittal*.

⁸⁴ *Nucor Corp. v. United States*, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); see also *Mittal*, 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.”).

⁸⁵ *Mittal*, 542 F.3d at 875-79.

⁸⁶ *Mittal*, 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).

The progression of *Gerald Metals, Bratsk, and Mittal* 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.⁸⁷

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.⁸⁸ Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.⁸⁹

B. Conditions of Competition and the Business Cycle

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

1. Demand Conditions

Ceramic tile is a form of decorative covering for surfaces, including floors and walls in kitchens, bathrooms, and commercial spaces.⁹⁰ A majority of responding parties (five U.S. producers and 23 importers) reported that there had not been significant changes in product range, product mix, or in the marketing for ceramic tile during the POI.⁹¹

Demand for ceramic tile derives from demand for new residential construction, as well as remodeling/replacement within residential homes.⁹² The most frequently reported end-uses for ceramic tiles are floor and wall coverings in kitchens and bathrooms, with other end-uses

⁸⁷ To that end, after the Federal Circuit issued its decision in *Bratsk*, the Commission began to present published information or send out information requests in the final phase of investigations to producers in nonsubject countries that accounted for substantial shares of U.S. imports of subject merchandise (if, in fact, there were large nonsubject import suppliers). In order to provide a more complete record for the Commission's causation analysis, these requests typically seek information on capacity, production, and shipments of the product under investigation in the major source countries that export to the United States. The Commission plans to continue utilizing published or requested information in the final phase of investigations in which there are substantial levels of nonsubject imports.

⁸⁸ We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

⁸⁹ *Mittal*, 542 F.3d at 873; *Nippon*, 458 F.3d at 1350, citing *U.S. Steel*, 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.").

⁹⁰ CR at II-1; PR at II-1.

⁹¹ CR at II-2; PR at II-1. Four U.S. producers and 14 importers reported that there had been changes in product range, including a trend toward larger tile sizes, an increase in use of luxury vinyl tile ("LVT"), and advances in digital printing for ceramic tile. *Id.*

⁹² CR at II-1; PR at II-1.

including covering countertops and swimming pool coping.⁹³ Although there are substitutes for ceramic tile with respect to certain applications (such as flooring), there are also applications that specifically may require ceramic tile.⁹⁴ Further, demand for ceramic tile tied to new housing construction may be subject to seasonal construction cycles, with higher demand during spring and fall seasons.⁹⁵

During the POI, new home construction and repair/remodeling activity was steady or increasing.⁹⁶ The vast majority of both U.S. producers and importers reported that demand for ceramic tile increased over the POI.⁹⁷ This is consistent with data on the record; apparent U.S. consumption by quantity⁹⁸ of ceramic tile increased over the POI, from 2.9 billion square feet in 2016 to 3.0 billion in 2017 and 3.1 billion in 2018.^{99 100}

2. Supply Conditions

The domestic industry, subject imports, and nonsubject imports all supplied the U.S. market over the POI.

The domestic industry accounted for the second largest share of the U.S. market by quantity over the POI. Its market share was steady at 30.5 percent of apparent U.S.

⁹³ CR at II-9; PR at II-5-6.

⁹⁴ A majority of responding U.S. producers and importers reported that there were substitutes for ceramic tile with respect to certain applications. For flooring applications, such substitutes include LVT, carpet, and wood; for flooring and wall applications, stone was a reported substitute. CR at II-13; PR at II-8. Other applications, however, may require particular types of ceramic tile. CR at II-17; PR at II-11 (noting that non-porcelain ceramic tile may not be suitable for outdoor applications because of the necessary tolerance for temperature ranges in such applications).

⁹⁵ CR at II-1; PR at II-1. CR at II-9-10; PR at II-6. Six of nine responding U.S. producers and 23 of 37 importers reported that the market for ceramic tile is not subject to business cycles. Of those reporting business cycles, most reported that the market follows seasonal trends in construction, with weaker demand in winter and stronger demand in spring and fall. CR at II-9-10; PR at II-6.

⁹⁶ CR/PR at Figure II-1.

⁹⁷ CR/PR at Table II-5. Eight of nine U.S. producers, and 24 of 37 importers reported that demand for ceramic tile increased during the POI. *Id.*

⁹⁸ We note that both the Petitioner and Joint Respondents agree that quantity offers the best measure of data for ceramic tile. Petitioner's Br. at Att. A, 2-3; Joint Respondents' Br. at Exh. 1, 39. We rely primarily on quantity-based data for our analysis, while also taking into consideration value-based data, where appropriate.

⁹⁹ CR/PR at Table IV-5. Apparent U.S. consumption by value also increased during the POI, from \$3.28 billion in 2016 to \$3.48 billion in 2017 and \$3.52 billion in 2018. *Id.*

¹⁰⁰ Joint Respondents argue that the demand for ceramic tile in flooring applications has declined due to increased demand for LVT in the U.S. market. Joint Respondents' Br. at 22-23. Overall, however, apparent U.S. consumption for ceramic tile increased each year of the POI, as described above. Further, the Petitioner submitted data indicating that LVT had reduced demand for other flooring materials, but not for ceramic tile. Petitioner's Br. at Exh. A-7.a.

consumption in 2016 and 2017 before declining to 28.5 percent in 2018.¹⁰¹ The domestic industry's annual production capacity increased, from 993 million square feet in 2016 to 1.1 billion square feet in 2017 and 1.2 billion square feet in 2018.¹⁰² The domestic industry's annual capacity remained below apparent U.S. consumption throughout the POI.¹⁰³ Its capacity utilization declined, from 88.8 percent in 2016 to 88.7 percent in 2017 and 78.0 percent in 2018.^{104 105}

Subject imports accounted for the smallest market share during the POI, although they were the largest single country source of imports by quantity, and their market share increased. Their market share, by quantity, was 20.4 percent of apparent U.S. consumption in 2016, 21.8 percent in 2017, and 22.5 percent in 2018.¹⁰⁶

Nonsubject imports collectively accounted for the largest market share by quantity over the POI. Their market share by quantity was 49.1 percent in 2016, 47.7 percent in 2017, and 49.0 percent in 2018.¹⁰⁷ The largest sources for these imports during the POI were Italy, Mexico, and Spain.¹⁰⁸

3. Substitutability and Other Conditions

The degree of substitutability between domestic and imported ceramic tile depends upon factors such as price, quality (including grade standards, defect rates, etc.), and conditions of sale (including price discounts, lead times, reliability of supply, product services, availability of product types from different sources, etc.).¹⁰⁹ Because both U.S. producers and importers primarily sell ceramic tile from inventory, there is little difference in lead times between products from these sources.¹¹⁰ Both U.S. producers and importers reported shipments to

¹⁰¹ CR/PR at Table IV-6. By value, the domestic industry accounted for the second largest market share (after nonsubject imports), with this share initially increasing from 36.1 percent in 2016 to 36.2 percent in 2017 before declining to 34.7 percent in 2018. *Id.*

¹⁰² CR/PR at Table III-5.

¹⁰³ CR/PR at Table C-1.

¹⁰⁴ CR/PR at Table III-5.

¹⁰⁵ Joint Respondents argue that the domestic industry's capacity utilization rates are distorted due to low rates reported by firms with start-up operations during the POI, specifically ***. Joint Respondents' Br. at 39. Even setting aside these two firms, however, every other U.S. producers' reported capacity utilization ***. CR/PR at Table III-5.

¹⁰⁶ CR/PR at Table IV-6. By value, subject imports also accounted for the smallest market share, with its share increasing over the POI, from 15.8 percent in 2016 to 16.9 percent in 2017 and 17.8 percent in 2018. *Id.*

¹⁰⁷ CR/PR at Table IV-6. Nonsubject imports accounted for the largest market share by value and decreased overall during the POI, initially decreasing from 48.1 percent in 2016 to 46.8 percent in 2017, before increasing to 47.5 percent in 2018. *Id.*

¹⁰⁸ CR/PR at Table IV-2.

¹⁰⁹ CR at II-13-14; PR at II-9.

¹¹⁰ CR at II-14; PR at II-9. U.S. producers reported that 92.0 percent of their commercial shipments were sold from inventory, with lead times averaging 2 days. The remaining 8.0 percent of

similar channels of distribution, including to distributors, big box/home retail centers, other retailers, contractors/builders, and other end users.¹¹¹

Based on available record evidence, we find that there is a moderately high degree of substitutability between domestically produced ceramic tile and subject imports.¹¹² In addition to the factors mentioned above, a majority of U.S. producers and importers reported that domestically produced ceramic tile and subject imports are “always” or “frequently” interchangeable.^{113 114} U.S. purchasers asked to identify factors affecting their purchasing decisions most frequently cited price, followed by style/design/trend, and then quality.^{115 116} We therefore also find that price is an important factor in purchasing decisions for ceramic tile.

Joint Respondents and Kito argue that subject imports and the domestic like product are concentrated in different segments of the market, with subject imports focused in mosaic and decorative tiles and domestic producers focused in flooring tiles.¹¹⁷ The Petitioner disagrees, arguing that the domestic industry produces mosaic tiles that compete with subject imports,

U.S. producers’ shipments were produced-to-order, with lead times averaging 40 days. U.S. importers reported that 93.8 percent of their commercial shipments were sold from inventory, with lead times averaging just under 4 days. A further 5.1 percent of importers’ commercial shipments were from foreign manufacturers’ inventories, with lead times averaging 48 days, and 1.1 percent of commercial shipments were produced-to-order, with lead times averaging 77 days. *Id.*

¹¹¹ CR/PR at Tables D-1, D-2, D-3, and D-4.

¹¹² CR at II-14; PR at II-9.

¹¹³ CR/PR at Table II-7. Five of nine responding U.S. producers reported that these articles were “always” interchangeable, and three reported them to be “frequently” interchangeable. While a plurality of U.S. importers (16 of 35 responding firms) reported that such articles are “sometimes” interchangeable, the remaining majority reported them to be either “always” (8 of 35 responding firms) or “frequently” (11 of 35 responding firms) interchangeable. *Id.*

¹¹⁴ The Petitioner argues that subject imports are sometimes labeled as “porcelain” ceramic tile even though they do not meet relevant testing standards. Petitioner’s Br. at 15-16 & Att. A, 12-14. Notwithstanding this allegation, and as noted above, nearly all responding U.S. producers reported that subject imports and the domestic product are “always” or “frequently” interchangeable. CR/PR at Table II-7. To the degree that the Petitioner alleges that there are one or more subsets of subject imports with reduced interchangeability, we invite parties in their comments of draft questionnaires to suggest how to collect data on such products in any final phase of these investigations.

¹¹⁵ CR at II-15; PR at II-9-10. Seven purchasers identified price, five identified style/design/trend, and four identified quality. *Id.*

¹¹⁶ The Petitioner and Joint Respondents disagree regarding the importance of style/design in purchasing decisions for ceramic tile. The Petitioner argues that digital printing has enabled designs to be copied quickly by any producer, with the result that ceramic tile is a commodity product purchased primarily based on price. Joint Respondents contend that style is a crucial purchasing factor and note that ceramic tile producers maintain design teams in the United States and Italy because of its importance. Petitioner’s Br. at 12-13; Conference Tr. at 82-83 (Curran and Mattioli); Joint Respondents’ Br. at 26. We will examine further in any final phase of these investigations how style and design affect purchasing decisions for ceramic tile.

¹¹⁷ Joint Respondents’ Br. at 20 & 34; Kito Br. at 14-15.

and it further contends that respondents mischaracterize the domestic industry's focus on flooring tiles.¹¹⁸ While the Petitioner has provided examples of mosaic tiles available from U.S. producers,¹¹⁹ the record of this preliminary phase does not otherwise contain information on U.S. shipments of these products.¹²⁰

Effective September 24, 2018, subject imports were subject to a 10 percent *ad valorem* duty pursuant to Section 301 of the Trade Act of 1974 ("Section 301 tariffs").¹²¹ The majority of U.S. producers and importers reported that the Section 301 tariffs had not changed demand in the U.S. market for ceramic tile, and a majority of U.S. producers reported that the Section 301 tariffs had resulted either in no change or an increase in price for ceramic tile.¹²² A majority of U.S. importers further reported that Section 301 tariffs had resulted in increases in prices.¹²³

C. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."¹²⁴

The volume of subject imports increased from 583.4 million square feet in 2016 to 657.2 million in 2017 and 692.1 million in 2018, for a total increase of 18.6 percent.¹²⁵ ¹²⁶ The subject

¹¹⁸ Petitioner's Br. at Att. A, 3-4. The Petitioner argues that the label "flooring" tile is merely indicative of meeting higher performance requirements, and that domestic industry tiles are used for multiple applications and frequently labeled "floor and wall" tile. Petitioner's Br. at Att. A, 1-2 & Exh. A.2.

¹¹⁹ Petitioner's Br. at Exh. A.3 (U.S. producer product catalogues with examples of mosaic tile).

¹²⁰ For any potential arguments regarding mosaic tile, we request that parties suggest both clear definitions and specific data to be collected for such products in their comments on the Commission's draft questionnaires in any final phase of these investigations. 19 C.F.R. § 207.20(b).

¹²¹ CR at I-6; PR at I-5. About two weeks before the vote in the preliminary phase of these investigations, the rate of Section 301 tariffs was increased to 25 percent *ad valorem*. See *Notice of Modification of Section 301 Action: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 84 Fed. Reg. 20,459 (May 9, 2019).

¹²² CR/PR at Table II-1. Four of seven responding U.S. producers reported that the Section 301 tariffs had not changed demand for ceramic tile; two of seven U.S. producers reported that they had resulted in price increases, and three reported no change in price. *Id.*

¹²³ CR/PR at Table II-1. Seventeen of 32 responding U.S. importers reported that the Section 301 tariffs had not changed demand for ceramic tile; 21 reported that the tariffs resulted in price increases. *Id.*

¹²⁴ 19 U.S.C. § 1677(7)(C)(i).

¹²⁵ CR/PR at Table IV-2. By value, the volume of subject imports also increased over the POI, from \$517.4 million in 2016 to \$588.9 million in 2017 and \$626.3 million in 2018, or by 21.0 percent. *Id.*

¹²⁶ Joint Respondents argue that the increase in subject import volumes in 2018 resulted from the imposition of Section 301 tariffs, because importers attempted to increase inventories prior to imposition of these duties and their expected increase to 25 percent in January 2019. Joint Respondents' Br. at 32-33. Regardless of the reason for increases in subject import volumes, we find the

import volumes increased more than apparent U.S. consumption, resulting in increased market share for subject imports during the POI. Subject import market share by quantity increased from 20.4 percent in 2016 to 21.8 percent in 2017 and 22.5 percent in 2018.¹²⁷

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

D. Price Effects of Subject Imports

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

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

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.¹²⁸

As addressed above, the current record indicates that there is a moderately high degree of substitutability between subject imports and the domestically produced product, and that price is an important factor in purchasing decisions.

In the preliminary phase of these investigations, the Commission requested that U.S. producers and importers provide quarterly data for the total quantity and f.o.b. value for four ceramic tile products shipped to unrelated U.S. customers between 2016 and 2018.¹²⁹ Eight U.S. producers and 17 importers provided usable pricing data on sales of the requested products.¹³⁰

The pricing data show that subject imports undersold the domestic like product in 20 of 48 quarterly price comparisons (involving 153.6 million square feet of ceramic tile and 71

volume and increase to be significant based on the available record evidence, as explained above. In any final phase of these investigations, we will further consider the impact of Section 301 tariffs on subject import volumes.

¹²⁷ CR/PR at Table IV-6. By value, subject import market share also increased, from 15.8 percent in 2016 to 16.9 percent in 2017 and 17.8 percent in 2018. *Id.*

¹²⁸ 19 U.S.C. § 1677(7)(C)(ii).

¹²⁹ The pricing products were: **Product 1.**— Porcelain tile, rectangular, 6"-8" in width by 24"-36" in length, sold to home center retailers; **Product 2.**— Porcelain tile, square or rectangular, 12"-24" in width by 12"-24" in length, sold to distributors; **Product 3.**— Ceramic tile, square or rectangular, 12"-24" in width by 12"-24" in length, sold to home center retailers; **Product 4.**— Ceramic tile, square or rectangular, 3"-6" in width by 6"-12" in length, sold to other retailers. CR at V-7; PR at V-5.

¹³⁰ CR at V-8, PR at V-6. The pricing data accounted for approximately 35.5 percent of U.S. producers' commercial shipments and 29.9 percent of U.S. commercial shipments of subject imports in 2018. Not all firms reported pricing data for all products in all quarters. *Id.*

percent of subject imports in pricing data) and at underselling margins ranging from 3.3 percent to 19.8 percent. While the data further show that subject imports oversold the domestic like product in the remaining 28 of 48 quarterly comparisons, it involved less quantity (61.3 million square feet of ceramic tile) at overselling margins ranging from 1.0 percent to 52.5 percent.¹³¹

We have examined several sources of data in our underselling analysis. The Commission collected purchase cost data for pricing products imported from China for internal use, repackaging, or retail sales, and nine importers provided usable pricing data of the requested products.¹³² Purchase cost data show lower purchase costs for subject imports in 28 of 48 comparisons (involving 62.9 million square feet), at cost differentials ranging from 0.9 percent to 45.3 percent; these data further indicate higher purchase costs for subject imports in 20 of 48 instances (involving 119.1 million square feet), at cost differentials ranging from 2.3 percent to 33.3 percent.¹³³ While we recognize that import purchase cost data may not reflect the total cost of importing, importers estimated that the margin saved by directly importing ranged from 10 to 40 percent (for an average of 22 percent).¹³⁴

We have also considered lost sales and lost revenue data. Of eight U.S. purchasers that responded to the lost sales lost revenue survey, four reported purchasing subject imports instead of the domestic like product, with all of these firms reporting that subject imports were lower priced and three reporting that price was a primary reason for their purchase.¹³⁵

While the available evidence regarding underselling is mixed, the record shows that substantial quantities of subject imports were priced lower than the domestic product, both in the importers' sales data and in the direct import purchase cost data. Additionally, multiple purchasers reported that they bought the subject imports instead of the domestic product, and each of these purchasers confirmed that subject imports were lower priced. Accordingly, for purposes of these preliminary determinations, and with the intention of exploring the issue further in any final phase of these investigations, we find that underselling by subject imports was significant. We recognize that the pricing products may be overly broad and distorted by product mix.¹³⁶ We invite parties in their comments on the draft questionnaires for any final

¹³¹ CR/PR at Table V-13.

¹³² CR at V-17; PR at V-7. Import purchase cost data reported by these firms accounted for approximately 43 percent of these firms' imports for internal consumption and transfers to related firms in 2018. *Id.*

¹³³ CR/PR at Tables V-8, V-9, V-10, and V-11.

¹³⁴ CR at V-17 and V-26; PR at V-7 and 9.

¹³⁵ CR/PR at Table V-15. These reported lost sales accounted for 19.7 million square feet of ceramic tile. *Id.*

¹³⁶ *See, e.g.,* Joint Respondents' Br. at 35-36. Furthermore, as reported by several importers, pricing data reported by them yielded higher AUVs than U.S. producers because their pricing data included decorative or mosaic tile, which are higher priced than non-mosaic ceramic tile but which were included within the same pricing product definitions. CR at V-8 n.12; PR at V-6 n. 12. Further, import cost data for pricing product three yielded higher AUVs than importer pricing data, which indicates that these data may reflect differences in product mix. *Compare* CR/PR at Table V-6 *with* CR/PR at Table V-

phase of these investigations to suggest pricing products with more specificity and less product variation to improve pricing comparisons.¹³⁷

We have also considered price trends for the domestic product. Despite strong demand, prices for three of the domestically produced pricing products decreased during the POI,¹³⁸ while prices for subject imports decreased for two pricing products over the POI.¹³⁹ These trends, however, did not always correlate. For instance, the domestic industry's price for pricing product 4 was relatively stable but declined slightly (**% percent), while subject import prices fluctuated and were higher than domestic prices for a majority of quarterly comparisons.¹⁴⁰ The record also shows that no responding U.S. purchaser reported that domestic producers had reduced prices to compete with subject imports.¹⁴¹ Based on this record, we do not find that subject imports depressed domestic prices to a significant degree.¹⁴²

As noted above, pricing data show price decreases for three of the domestic industry's products, and a price increase for one product.¹⁴³ The domestic industry's cost of goods sold ("COGS") to net sales ratio, however, decreased each year of the POI, from 57.2 percent in 2016 to 55.2 percent in 2017 and 54.6 percent in 2018.¹⁴⁴ The industry's raw material costs as a ratio to net sales also declined over the POI, and the industry's raw material costs were flat on a per unit basis.¹⁴⁵ Thus, the domestic industry did not appear to be experiencing a cost-price

10. Additionally, pricing product 2 is for products sold to distributors (*e.g.*, an unrelated party), and these data thus do not represent true import cost data. CR at V-7; PR at V-5.

¹³⁷ Joint Respondents suggest that rather than relying on pricing data, the Commission should rely on AUVs for ceramic tile to evaluate price effects. Joint Respondents' Br. at 35-36. AUVs, however, would also be affected by the diverse product mix for ceramic tile. Indeed, a witness for Joint Respondents acknowledged that the product mix of ceramic tile distorted AUVs and described comparing AUVs as "comparing apples and oranges." Conference Tr. at 179 (Shah).

¹³⁸ Prices for the domestic product decreased **% percent for product 1, **% percent for product 2, and **% percent for product 4. Domestic prices increased **% percent for product 3. CR/PR at Table V-12.

¹³⁹ Prices for subject imports decreased **% percent for product 1 and **% percent for product 4. Prices for subject imports increased **% percent for product 2 and **% percent for product 3. CR/PR at Table V-12.

¹⁴⁰ CR/PR at Figures V-6 & V-10.

¹⁴¹ Five responding purchasers reported that domestic producers had not reduced prices to compete with subject imports, and three reported that they did not know whether this had occurred. CR/PR at Table V-16.

¹⁴² We note party arguments regarding different factors negatively impacting ceramic tile pricing in the market. *See, e.g.*, Petitioner's Br. at 15-16; Joint Respondents' Br. at 48-49. In any final phase of these investigations, we will further evaluate factors that impact pricing.

¹⁴³ CR/PR at Table V-12.

¹⁴⁴ CR/PR at Table VI-1.

¹⁴⁵ CR/PR at Table VI-1 (showing the domestic industry's unit value of raw material costs flat at \$0.23 per square foot throughout the POI and its ratio of raw material costs to net sales declining from 16.7 to 16.1 percent from 2016 to 2018). The Petitioner argues that increases in raw material costs

squeeze, and we do not find for purposes of these preliminary determinations that subject imports suppressed domestic prices to a significant degree.

The available record evidence indicates that subject import volumes and market share increased each year of the POI, responding U.S. purchasers reported that subject imports were lower priced than the domestic product, and further that a majority of those who purchased subject imports instead of the domestic product did so primarily because of price. Combined with the evidence of underselling described above and the domestic industry's loss of market share, we conclude for purposes of these preliminary determinations that subject imports had significant adverse price effects.

E. Impact of the Subject Imports¹⁴⁶

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."¹⁴⁷

Notwithstanding increases in apparent U.S. consumption, U.S. producers lost market share from 2017 to 2018 as their U.S. shipments declined. Similarly, the domestic industry's production and financial performance also experienced declines from 2017 to 2018.

The domestic industry's market share by quantity declined during the POI, from 30.5 percent in 2016 to 28.5 percent in 2018.¹⁴⁸ While its production capacity increased over the

during the POI, specifically increases in costs for clay, are evidence of pricing pressures on the domestic industry. Petitioner's Br. at 22. In addition to the flat unit value for the industry's raw material costs noted above, the domestic industry's total raw material costs were lower in 2018 than in 2016, along with the industry's ratio of raw material costs to net sales. CR/PR at Table VI-1.

¹⁴⁶ Commerce initiated its investigation based on estimated dumping margins ranging from 127.33 percent to 356.02 percent for subject imports from China. *Ceramic Tile from the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 84 Fed. Reg. 20093, 20096 (Dep't of Commerce, May 8, 2019).

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

¹⁴⁸ CR/PR at Table IV-6. By value as well, the domestic industry's market share also declined overall during the POI, initially increasing slightly from 36.1 percent in 2016 to 36.2 percent in 2017 before declining to 34.7 percent in 2018. *Id.*

POI,¹⁴⁹ its capacity utilization declined.¹⁵⁰ The domestic industry's U.S. shipments¹⁵¹ and production¹⁵² initially increased between 2016 and 2017 before declining in 2018. Domestic producers' inventories increased each year of the POI.¹⁵³

Most employment-related indicators for the domestic industry followed similar trends: increasing between 2016 and 2017 before decreasing in 2018. The number of production-related workers ("PRWs"), wages paid, and productivity were higher in 2018 than in 2016, but total hours worked were lower in 2018 than in 2016. Hourly wages increased each year of the POI.¹⁵⁴

The domestic industry's financial indicators generally increased between 2016 and 2017 before declining in 2018, although the domestic industry remained profitable throughout the POI. Net sales by value increased between 2016 and 2017 before declining in 2018, albeit to a higher level than in 2016.¹⁵⁵ While the domestic industry's operating income, net income, and gross profit were positive over the POI and increased between 2016 and 2017, each of these indicators declined in 2018.¹⁵⁶ Similarly, operating income as a share of net sales increased

¹⁴⁹ The domestic industry's capacity increased each year of the POI, from 993.01 million square feet in 2016 to 1.11 million square feet in 2017 and 1.15 million square feet in 2018. CR/PR at Table III-5.

¹⁵⁰ The domestic industry's capacity utilization was 88.8 percent in 2016, 88.7 percent in 2017, and 78.0 percent in 2018. CR/PR at Table III-5.

¹⁵¹ The domestic industry's U.S. shipments were 872.1 million square feet in 2016, 921.3 million square feet in 2017, and 875.8 million square feet in 2018. By value, the domestic industry's U.S. shipments followed a similar trajectory, initially increasing from \$1.19 billion in 2016 to \$1.26 billion in 2017 before declining to \$1.22 billion in 2018. CR/PR at Table III-6.

¹⁵² The domestic industry's production initially increased from 882.1 million square feet in 2016 to 987.9 million square feet in 2017, before declining to 897.0 million square feet in 2018. CR/PR at Table III-5.

¹⁵³ The domestic industry's ending quantities of inventories increased from 256.1 million square feet in 2016 to 313.8 million in 2017 and 325.8 million in 2018. CR/PR at Table III-7. The domestic industry's export shipments by quantity increased each year of the POI, from *** square feet in 2016 to *** in 2017 and *** in 2018, but this increase in 2018 did not offset the larger decrease in U.S. shipments. By value as well, export shipments increased each year from \$*** in 2016 to \$*** in 2017 and \$*** in 2018. CR/PR at Table III-6.

¹⁵⁴ The domestic industry's PRWs was 2,961 in 2016, 3,120 in 2017, and 2,976 in 2018. Total hours worked was 6.5 million hours in 2016, 6.8 million hours in 2017, and 6.3 million hours in 2018. Wages paid were \$160.6 million in 2016, \$174.4 million in 2017, and \$167.1 million in 2018. Productivity initially increased from 136.7 square feet per hour in 2016 to 144.8 square feet per hour in 2017, before declining to 141.7 square feet per hour in 2018. Hourly wages increased each year from \$24.89 in 2016 to \$25.56 in 2017 and \$26.40 in 2017. CR/PR at Table III-9.

¹⁵⁵ By value as well, the domestic industry's net sales were \$1.2 billion in 2016, \$1.3 billion in 2017, and \$1.2 billion in 2018. CR/PR at Table VI-1.

¹⁵⁶ The domestic industry's gross profit was \$514.1 million in 2016, \$571.9 million in 2017, and \$560.3 million in 2018. Its operating income was \$241.5 million in 2016, \$274.0 million in 2017, and

between 2016 and 2017 before declining in 2018, albeit to the same level as in 2016.¹⁵⁷ Domestic producers' capital expenditures declined each year of the POI, while research and development expenses increased each year.¹⁵⁸ A majority of domestic producers also reported negative effects on investment, while a minority reported negative effects on growth and development due to subject imports.¹⁵⁹

As discussed above, increases in the volume and market share of subject imports were significant during the POI, and frequent underselling by subject imports resulted in adverse price effects. While the domestic industry's performance generally improved between 2016 and 2017, its performance declined in 2018 notwithstanding the continued increases in apparent U.S. consumption. We cannot conclude that the significant increases in subject imports did not cause the domestic industry to lose sales and revenues it would otherwise have obtained. Consequently, for purposes of these preliminary determinations, we find that the increases in subject imports and their underselling had a significant adverse impact on the domestic industry.

We have considered whether there are other factors that may have had an impact on the domestic industry during the POI to ensure that we are not attributing injury from such other factors to subject imports. Joint Respondents argue that any declines in the domestic industry's performance¹⁶⁰ resulted from sales lost to LVT, not to subject imports.¹⁶¹ Available data, however, indicate both that (i) apparent U.S. consumption of ceramic tile increased over the POI, and that (ii) the domestic industry lost market share in ceramic tile to subject imports in 2018.¹⁶² Further, the Petitioner provided industry data indicating that LVT competes with carpeting and plastic flooring materials, but not with ceramic tile in flooring applications.¹⁶³

\$247.8 million in 2018. Its net income was \$223.8 million in 2016, \$248.0 million in 2017, and \$218.1 million in 2018. CR/PR at Table VI-1.

¹⁵⁷ The domestic industry's operating income as a share of net sales increased from 20.1 percent in 2016 to 21.5 percent in 2017 before decreasing to 20.1 percent in 2018. CR/PR at Table VI-1.

¹⁵⁸ Capital expenditures declined from \$313.6 million in 2016 to \$194.2 million in 2017 and \$161.7 million in 2018. Research and development expenses increased from \$*** in 2016 to \$*** in 2017 and \$*** in 2018. CR/PR at Table VI-4.

¹⁵⁹ CR/PR at Table VI-6. Seven of nine responding U.S. producers reported negative effects on investment as a result of subject imports, including cancelled or postponed projects and reductions in capital investments. Three of nine responding U.S. producers reported negative effects on growth and development, including reduced ability to develop new product lines. *Id.* & CR/PR at Table VI-7.

¹⁶⁰ Joint Respondents suggest that the domestic industry's profitability during the POI precludes a finding of significant impact or injury. Joint Respondents' Br. at 6 & 37-38. The statute, however, indicates that profitability is not determinative to a material injury analysis. See 19 U.S.C. § 1677(7)(J).

¹⁶¹ Joint Respondents' Br. at 22-25 & 40.

¹⁶² CR/PR at Table IV-6.

¹⁶³ Petitioner's Br. at Exh. A-7.a (industry data indicating that ceramic tile's market share in flooring applications increased over the POI, while LVT's market share for flooring applications increased at the expense of carpet and plastic flooring materials).

Accordingly, the available record evidence in the preliminary phase of these investigations does not support Joint Respondents' contention.

Joint Respondents further suggest that any declines in the domestic industry's performance resulted from increasing costs, specifically increases in labor and shipping/freight costs.¹⁶⁴ While the domestic industry's direct labor costs increased, this increase was offset by larger decreases in other factory costs over the POI.¹⁶⁵ As a result, the domestic industry's total COGS was lower in 2018 than in 2016, and its COGS to net sales ratio also declined each year of the POI.¹⁶⁶ Accordingly, available record evidence does not support the argument that labor and shipping/freight costs explain the declines in the domestic industry's performance in 2018.

We have also considered the role of nonsubject imports. Nonsubject imports' share of apparent U.S. consumption by quantity decreased overall during the POI, from 49.1 percent in 2016 to 47.7 percent in 2017 and 49.0 percent in 2018.¹⁶⁷ Even while nonsubject imports collectively accounted for the largest source of U.S. supply, China was the largest single country source of imports by quantity and its imports increased during the POI.¹⁶⁸ Accordingly, we cannot conclude from the available evidence that nonsubject imports explain the domestic industry's declining market share and performance in 2018.¹⁶⁹

VI. Conclusion

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

¹⁶⁴ Joint Respondents' Br. at 30 & Exh. 1, 33-34.

¹⁶⁵ CR/PR at Table VI-1.

¹⁶⁶ CR/PR at Table VI-1.

¹⁶⁷ CR/PR at Table IV-6. By value, nonsubject imports market share decreased overall during the POI, at 48.1 percent in 2016, 46.8 percent in 2017, and 47.5 percent in 2018. *Id.*

¹⁶⁸ CR/PR at Table IV-6. By value, nonsubject imports from Italy accounted for a larger single country market share than subject imports, but these imports' market share by value declined over the POI while that for subject imports increased. *Id.*

¹⁶⁹ There are no available pricing comparisons for nonsubject imports, either with the domestic like product or subject imports. While Joint Respondents rely on AUVs to argue that nonsubject imports are lower priced than subject imports, the product mix for ceramic tiles make AUVs an unreliable indicator of pricing, as conceded by a witness for the Joint Respondents. Conference Tr. at 179 (Shah).

PART I: INTRODUCTION

BACKGROUND

These investigations result from petitions filed with the U.S. Department of Commerce (“Commerce”) and the U.S. International Trade Commission (“USITC” or “Commission”) by Coalition for Fair Trade in Ceramic Tile,¹ on April 10, 2019, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value (“LTFV”) imports of ceramic tile products (“ceramic tile”)² from China. The following tabulation provides information relating to the background of these investigations.^{3 4}

Effective date	Action
April 10, 2019	Petition filed with Commerce and the Commission; institution of Commission investigations (84 FR 15637, April 16, 2019)
April 30	Commerce’s notice of initiation (AD: 84 FR 20093; CVD: 84 FR 20101, May 8, 2019)
May 1	Commission’s conference
May 24	Commission’s vote
May 28	Commission’s determinations
June 4, 2019	Commission’s views

STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

Statutory criteria

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

¹ The Coalition for Fair Trade in Ceramic Tile consists of American Wonder Porcelain (“American Wonder”), Crossville, Inc. (“Crossville”), Dal-Tile Corp. (“Dal-Tile”), Del Conca USA, Inc. (“Del Conca”), Florida Tile, Inc. (“Florida Tile”), Florim USA (“Florim”), Landmark Ceramics (“Landmark”), and StonePeak Ceramics (“Stonepeak”).

² See the section entitled “The Subject Merchandise” in *Part I* of this report for a complete description of the merchandise subject in this proceeding.

³ Pertinent *Federal Register* notices are referenced in appendix A, and may be found at the Commission’s website (www.usitc.gov).

⁴ A list of witnesses appearing at the conference is presented in appendix B of this report.

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--⁵
In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant. . . In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether. . . (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree. . . In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to. . . (I) actual and potential decline in output, sales, market share, gross profits, operating profits, net profits, ability to service debt, productivity, return on investments, return on assets, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.

In addition, Section 771(7)(J) of the Act (19 U.S.C. § 1677(7)(J)) provides that—⁶

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

⁶ Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

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

Organization of report

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

MARKET SUMMARY

Ceramic tile generally is used to cover floors, walkways, counter- and table-tops, walls, and shower stalls. The leading U.S. producers of ceramic tile are Dal-Tile (part of Mohawk Industries), Florim, and Stonepeak, while leading producers of ceramic tile outside the United States include Mohawk Industries (facilities in Mexico, Italy, Spain, Poland, Bulgaria, and Russia), SCG Group (facilities in Thailand, Vietnam, Indonesia, and the Philippines), and Grupo Lamosa (facilities in Mexico, Argentina, Columbia, and Peru).⁷ The leading U.S. importers of ceramic tile from both China and from nonsubject sources are ***, ***,⁸ and ***. U.S. purchasers of ceramic tile include retailers, contractors in the construction industry, and distributors. Leading purchasers include ***.

Apparent U.S. consumption of ceramic tile totaled approximately 3.1 billion square feet (\$3.5 billion) in 2018. Currently, nine firms are known to produce ceramic tile in the United States. U.S. producers' U.S. shipments of ceramic tile totaled 875.7 million square feet (\$1.2 billion) in 2018, and accounted for 28.5 percent of apparent U.S. consumption by quantity and 34.7 percent by value. U.S. imports from China totaled 692.1 million square feet (\$626.3 million) in 2018 and accounted for 22.5 percent of apparent U.S. consumption by quantity and 17.8 percent by value. U.S. imports from nonsubject sources totaled 1.5 billion square feet (\$1.7 billion) in 2018 and accounted for 49.0 percent of apparent U.S. consumption by quantity and 47.6 percent by value.

⁷ *Ceramic World Review 128/2018*, Tile Edizioni, p. 76, found at <https://www.ceramicworldweb.it/cww-en/magazines/ceramic-world-review-1282018/>, retrieved on April 22, 2019.

⁸ ***.

SUMMARY DATA AND DATA SOURCES

A summary of data collected in these investigations is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on questionnaire responses of nine firms that accounted for the vast majority of U.S. production of ceramic tile during 2018.⁹ U.S. imports are based on official Commerce statistics¹⁰ and questionnaire responses received from 39 companies, representing approximately 61.9 percent of quantity of U.S. imports from China and approximately 49.6 percent of quantity of imports from nonsubject sources in 2018.¹¹

PREVIOUS AND RELATED INVESTIGATIONS

Commission investigations

Ceramic tile has been subject to two trade remedy investigations (described below), a competitive assessment investigation of ceramic floor and wall tile industry,¹² four investigations under section 301(c)(2) of the Trade Expansion Act of 1962,¹³ and one escape-clause investigation under provisions of Section 7 of the Trade Agreements Extension Act of 1951.¹⁴

In April 1971, the United States Tariff Commission (predecessor to the USITC) determined that an industry in the United States was being injured by the importation of ceramic wall tile from the United Kingdom.¹⁵ In August 1973, the United States Tariff Commission determined that an industry in the United States was not being or was not likely to be injured by the importation of ceramic glazed wall tile from the Philippines.¹⁶

⁹ Petition, p. 3.

¹⁰ U.S. imports under Harmonized Tariff Schedule of the United States (“HTS”) subheadings 6907 and, prior to 2017, 6908.

¹¹ The petitioner concur that official import statistics represent the majority of U.S. imports. Conference transcript, p. 54. Respondents’ indicate that they believe the majority of porcelain and ceramic tiles are currently being imported under subheading 6907. Respondents’ postconference brief, Exh. 1, p. 38.

¹² *Competitive Assessment of the U.S. Ceramic Floor and Wall Tile Industry*, No. 332-156, USITC Publication 1442, October 1893.

¹³ *Ceramic Mosaic Tile Workers’ Petition For Adjustment Assistance*, Inv. No. TEA-W-5, TC Publication 115, November 25, 1963; *Tariff Commission Reports To The President On Petition For Adjustment Assistance By The National Tile & Manufacturing Co.*, Inv. No. TEA-F-5, TC Publication 145, December 21, 1964; *Ceramic Floor and Wall Tile: Certain Workers of The Cambridge Tile Mfg. Co.*, Inv. No. TEA-W-11, TC Publication 318, March 1970; *Ceramic Wall Tile: Workers of The Cambridge Tile Mfg. Co.*, Inv. No. TEA-W-134, TC Publication 481, May 1972;

¹⁴ *Ceramic Mosaic Tile*, Inv. No. 7-100, TC Publication 16, May 1961.

¹⁵ *Ceramic Wall Tile from the United Kingdom*, Inv. No. AA1921-68, TC Publication 381, April 1971, p. 2.

¹⁶ *Ceramic Glazed Wall Tile from the Philippines*, Inv. No. AA1921-120, TC Publication 599, August 1973, p. 2.

Section 301 proceeding¹⁷

Following the investigations under Section 301 of the Trade Act of 1974, by the Office of the United States Trade Representative (“USTR”), into “China’s acts, policies, and practices related to technology transfer, intellectual property, and innovation,” ceramic tile was included among the USTR’s third enumeration of products of China that became subject to additional 10 percent ad valorem duties in September 2018.¹⁸ Escalation of these duties to 25 percent ad valorem was rescheduled from January 2019¹⁹ to March 2019,²⁰ but was postponed in March 2019 with no definite end date specified at that time.²¹ Then in May 2019, duty escalation was implemented,²² although a subsequent modification provided for subject goods already exported from China on or before May 10, 2019 to be subject to the additional 10 percent duty as long as such goods enter into the United States prior to June 1, 2019.²³

NATURE AND EXTENT OF ALLEGED SUBSIDIES AND SALES AT LTFV

Alleged subsidies

On May 8, 2019, Commerce published a notice in the *Federal Register* of the initiation of its countervailing duty investigation on ceramic tile from China.²⁴ Commerce identified the following government programs in China:

- Preferential Lending
 - Policy Loans to the Ceramic Tile Industry
 - Regional Policy Loans – Guangdong Province
 - Preferential Loans Provided by the Export-Import Bank “Going-Out” for Outbound Investment
 - Export Seller’s Credit and Guarantees
 - Export Buyer’s Credit
 - Export Credit Insurance Subsidies from Sinosure
- Preferential Tax Programs

¹⁷ For further details, see the “Section 301 tariff treatment” section below.

¹⁸ *Notice of Modification of Section 301 Action: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 FR 47974, September 21, 2018.

¹⁹ *Ibid.*

²⁰ *Notice of Action Pursuant to Section 301: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 FR 65918, December 19, 2018.

²¹ *Notice of Modification of Section 301 Action: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 84 FR 7966, March 5, 2019.

²² *Notice of Modification of Section 301 Action: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 84 FR 20459, May 9, 2019.

²³ *Implementing Modification to Section 301 Action: China’s Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 84 FR 21892, May 15, 2019.

²⁴ *Ceramic Tile From the People’s Republic of China: Initiation of Countervailing Duty Investigation*, 84 FR 20101, May 8, 2019.

- Preferential Income Tax Reductions for High and New Technology Enterprises (HNTEs)
- Preferential Deduction of Research and Development (R&D) Expenses for HNTEs
- Reduced Tax Rates for Foreign Invested Enterprises (FIEs) Recognized as HNTEs
- Income Tax Benefits for Domestically-Owned Enterprises Engaging in R&D
- Reduced Income Tax Rates for Foreign Invested Enterprises (FIEs) Based on Location
- Tax Offsets for Research and Development by FIEs
- Corporate Income Tax Law Article 33: Reduction of Taxable Income for Revenue Derived from the Manufacture of Products that Are in Line with State Industrial Policy and Involve Synergistic Utilization of Resources
- Tax Offset for R&D – Guangdong Province Tax Program
- City Tax and Surcharge for FIEs – Guangdong Province
- Income Tax Reduction for High-Tech Industries in Guangdong Province
- Income Tax Programs for FIEs in Dongguan City in Guangdong Province
- Reduced Income Tax Rate for Entities in the Foshan High-Tech Industrial Development Zone
- Local Income Tax Exemption and Reduction Programs for “Productive” FIEs – Shandong Province
- Preferential Indirect Tax Programs
 - Value-Added Tax (VAT) and Tariff Exemptions for Purchases of Fixed Assets Under the Foreign Trade Development Fund Program
 - VAT and Tariff Exemptions for FIEs and Certain Domestic Enterprises Using Imported Equipment in Encouraged Industries
 - VAT Refunds for FIEs on Purchases of Chinese-Made Equipment
 - Duty Exemption - Foshan High-Tech Industrial Development Zone
 - City Maintenance Fee Exemptions - Foshan High-Tech Industrial Development Zone
- Provision of Goods and Services for Less Than Adequate Remuneration
 - Provision of Electricity for LTAR
 - Provision of Land for LTAR to Encouraged Industries
 - Provision of Water for LTAR
 - Provision of Clay for LTAR
 - Provision of Feldspar for LTAR
 - Provision of Sand for LTAR
 - Provision of Land for LTAR to Enterprises in Certain Industrial/Development Zones - Guangdong Qingyuan High-Tech Industrial Development Zone and Foshan High-Tech Industrial Development Zone
 - Provision of Electricity for LTAR in Certain Industrial/Development Zones - Nanchang Economic Development Zone, Zhenjiang Economy Development Zone, and Yangpu Economic Development Zone
- Grant Programs
 - Subsidies for Development of “Brands”

- Small and Medium Sized Enterprises (SME) International Market Exploration/Development Fund
- Grants for Listing Shares
- Foreign Trade Development Fund
- Grants for Antidumping Investigations
- Clean Production Technology Fund
- Environmental Protection Special Fund
- Guangdong Supporting Fund
- Guangdong Province HNTTE Incubation Program
- Export Interest Subsidies
- Guangdong Provincial Fund for Fiscal and Technological Innovation
- Funds of Guangdong Province to Support the Adoption of E-Commerce by Foreign Trade Enterprises
- Funds for Outward Expansion of Industries in Guangdong Province

Alleged sales at LTFV

On May 8, 2019, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigation on product from China.²⁵ Commerce has initiated antidumping duty investigations based on estimated dumping margins of 127.33 to 356.02 percent for ceramic tile from China.

THE SUBJECT MERCHANDISE

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows: *ceramic flooring tile, wall tile, paving tile, hearth tile, porcelain tile, mosaic tile, flags, finishing tile, and the like (hereinafter ceramic tile). Ceramic tiles are articles containing a mixture of minerals including clay (generally hydrous silicates of alumina or magnesium) that are fired so the raw materials are fused to produce a finished good that is less than 3.2 cm in actual thickness. All ceramic tile is subject to the scope regardless of end use, surface area, and weight, regardless of whether the tile is glazed or unglazed, regardless of the water absorption coefficient by weight, regardless of the extent of vitrification, and regardless of whether or not the tile is on a backing. Subject merchandise includes ceramic tile with decorative features that may in spots exceed 3.2 cm in thickness and includes ceramic tile "slabs" or "panels" (tiles that are larger than 1 square meter (11 square feet)).*

²⁵ *Ceramic Tile From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 84 FR 20093, May 8, 2019.

Subject merchandise includes ceramic tile that undergoes minor processing in a third country prior to importation into the United States. Similarly, subject merchandise includes ceramic tile produced that undergoes minor processing after importation into the United States. Such minor processing includes, but is not limited to, one or more of the following: Beveling, cutting, trimming, staining, painting, polishing, finishing, additional firing, or any other processing that would otherwise not remove the merchandise from the scope of the investigation if performed in the country of manufacture of the in-scope product.²⁶

Tariff treatment

Based upon the scope set forth by the Department of Commerce, information available to the Commission indicates that the merchandise subject to these investigations are provided for in the *Harmonized Tariff Schedule of the United States* (“HTS” or “HTSUS”) under the following statistical reporting numbers of heading 6907:²⁷ 6907.21.1005, 6907.21.1011, 6907.21.1051, 6907.21.2000, 6907.21.3000, 6907.21.4000, 6907.21.9011, 6907.21.9051, 6907.22.1005, 6907.22.1011, 6907.22.1051, 6907.22.2000, 6907.22.3000, 6907.22.4000, 6907.22.9011, 6907.22.9051, 6907.23.1005, 6907.23.1011, 6907.23.1051, 6907.23.2000, 6907.23.3000, 6907.23.4000, 6907.23.9011, 6907.23.9051, 6907.30.1005, 6907.30.1011, 6907.30.1051, 6907.30.2000, 6907.30.3000, 6907.30.4000, 6907.30.9011, 6907.30.9051, 6907.40.1005, 6907.40.1011, 6907.40.1051, 6907.40.2000, 6907.40.3000, 6907.40.4000, 6907.40.9011, and 6907.40.9051. The 2018 general rate of duty is 10 percent ad valorem for HTS subheadings 6907.21.10, 6907.21.20, 6907.21.30, 6907.22.10, 6907.22.20, 6907.22.30, 6907.23.10, 6907.23.20, 6907.23.30, 6907.30.10, 6907.30.20, 6907.30.30, 6907.40.10, 6907.40.20, 6907.40.30 and 8.5 percent ad valorem for HTS subheadings 6907.21.40, 6907.21.90, 6907.22.40, 6907.22.90, 6907.23.40, 6907.23.90, 6907.30.40, 6907.30.90, 6907.40.40, and 6907.40.90.²⁸

The subject merchandise may also be imported under the following HTS provisions: 6914.10.80, 6914.90.80, 6905.10.00, and 6905.90.00. The 2019 column 1-general rate of duty is 9.0 percent per dozen pieces for HTS subheading 6914.10.80 and 5.6 percent per dozen pieces

²⁶ *Ceramic Tile From the People’s Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 84 FR 20093, May 8, 2019.

²⁷ Prior to 2017, ceramic tile were provided for in HTS subheadings 6907.10.00, 6907.90.00, 6908.10.10, 6908.10.20, 6908.10.50, and 6908.90.00. The general rate of duty was 10 percent ad valorem for all subheadings but 6908.10.50 and 690.90.00, which were 8.5 percent ad valorem. *HTSUS (2017) Basic Edition*, USITC Publication 4660, February 2017, Change Record, pp. 60 to 62; *HTSUS (2016) Basic Edition*, USITC Publication 4588, March 2016, pp. 69-5 to 69-6.

²⁸ *HTSUS (2019) Revision 5*, USITC Publication 4896, May 2019, pp. 69-4 to 69-11.

for HTS 6914.90.80;^{29 30} and 13.5 percent ad valorem for HTS 6905.10.00 and 3.2 percent ad valorem for HTS 6905.90.00.³¹ Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Section 301 tariff treatment

The HTS subheadings for ceramic tile under headings 6907, 6905, and 6914 were included in the USTR's third enumeration ("tranche 3" or "list 3") of products imported from China that became subject to the additional 10 percent *ad valorem* duties (annexes A and C of 83 FR 47974, on or after September 24, 2018) under Section 301 of the Trade Act of 1974.³² Escalation of this duty to 25 percent ad valorem was rescheduled from January 1, 2019 (annex B of 83 FR 47974)³³ to March 2, 2019 (83 FR 65198),³⁴ but was subsequently postponed until further notice,³⁵ and then was implemented effective May 10, 2019 (84 FR 20459).³⁶ A subsequent modification was provided for subject goods exported from China prior to May 10, 2019 not to be subject to the escalated 25 percent duty as long as such goods entered into the United States prior to June 1, 2019 (84 FR 21892).³⁷ See also U.S. notes 20(e), 20(f), and 20(l) to subchapter III of HTS chapter 99.³⁸

²⁹ The temporary column-1 general rate of duty is 4.7 percent ad valorem for certain stoneware ceramic slabs provided for in HTS 6914.90.80 that are imported on or before December 31, 2020. *HTSUS (2019) Revision 5*, USITC Publication 4896, May 2019, pp. 69-19, 99-II-127.

³⁰ Large-size slab tile or panel tile may be imported under HTS statistical reporting numbers 6914.10.8000 and 6914.90.8000. Petition, p. 11.

³¹ *HTSUS (2019) Revision 5*, USITC Publication 4896, May 2019, p. 69-4.

³² *Notice of Modification of Section 301 Action: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 FR 47974, September 21, 2018.

³³ *Ibid.*

³⁴ *Notice of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 FR 65918, December 19, 2018.

³⁵ *Notice of Modification of Section 301 Action: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 84 FR 7966, March 5, 2019.

³⁶ *Notice of Modification of Section 301 Action: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 84 FR 20459, May 9, 2019.

³⁷ *Implementing Modification to Section 301 Action: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 84 FR 21892, May 15, 2019.

³⁸ *HTSUS (2019) Revision 5*, USITC Publication 4896, May 2019, pp. 99-III-21 to 99-III-22, 99-III-39, 99-III-52, 99-III-71, 99-III-72.

THE PRODUCT

Description and applications

Ceramic tile is a masonry product containing hydrous silicates of alumina (and/or other metals) that is fired at high temperatures to bond together the constituent particles.³⁹ They are often flat, with beveled edges, and are available in various shapes, sizes, and colors.⁴⁰ Tiles can currently be formed as large as 5-feet by 15-feet or more (often referred to as “slabs” or “panels”) and smaller than 1-inch by 1-inch. Thicknesses can exceed 3 cm or be as thin as 2 mm, with some tiles even beyond these dimensions.⁴¹ “Paving tile” or “pavers” are flat tile used for flooring or walking surfaces.⁴² “Finishing tile” are available in various shapes— including bases, caps, corners, moldings, angles, etc.— to complete the installation of ceramic tile to meet sanitary and/or architectural design requirements.⁴³

The durable and hard-wearing surface renders ceramic tile suitable for covering surfaces such as interior and exterior floors, walls, counter- and table-tops, shower stalls, and swimming pools, among numerous other applications. Ceramic tile is commonly used by the residential sector, especially in kitchens, bathrooms, and entrances; as well as by the commercial sector in various floor and wall applications.⁴⁴

Ceramic tile is distinguished between “floor tile” and “wall tile” based on the different physical-performance requirements of the different end-use applications. The American National Standard Institute (“ANSI”) specification A137.1 provides the physical and performance criteria to distinguish floor tile from wall tile.⁴⁵ Product-performance standards are more rigorous for floor tile than wall tile:

- Breaking Strength Test requirements of the American Society for Testing and Materials (“ASTM”) standard C648;
- Porcelain Enamel Institute (“PEI”) rating test requirements, for abrasion-resistance of glazed ceramic tile, of ASTM standard C1027; and
- Dynamic Coefficient of Friction (“DCOF”) test requirements for slip resistance.⁴⁶

³⁹ Petition, p. 8, exh. I-23-C “ASTM C1232–17, Standard Terminology for Masonry, April 2, 2019.”

⁴⁰ Petition, p. 9.

⁴¹ Petition, p. 11.

⁴² “Flags” appears in the HTSUS description but it is considered a synonymous but obsolete term by the ceramic tile industry for flooring and paving tile. Petition, pp. 8-9.

⁴³ Petition, p. 8, exh. I-23-A “ANSI A137.1—2017, American National Standard Specifications for Ceramic Tile, August 2017.”

⁴⁴ Petition, pp. 9-10, exh. I-4-A, exh. I-4-B.

⁴⁵ Petitioner’s postconference brief, attachment A, “FTCT’s responses to Commission staff questions,” pp. 1-2; exh. I-23-A “American National Standard Specifications for Ceramic Tile, ANSI A137.1—2017,” August 2017.

⁴⁶ Respondents’ postconference brief, exh. 1 “Response to staff questions,” pp. 7-8; exh. 2 “Declaration of Marisa Bedrosians, Bedrosians Tile & Stone.”

The Respondents note that floor tile, designed for durability and strength to meet the rigors as floor covering, are larger and thicker than wall tile, and are usually of porcelain ceramic for lower water absorption. By contrast, wall tiles tend to be thinner and are usually of non-porcelain ceramic that more readily adheres to walls.⁴⁷ The petitioner note that ceramic tile labeled as “floor tile” suitable for flooring applications is sold for use in both floor and wall applications. However, the term “wall tile” has a more specific definition for meeting water-absorption and minimum breaking-strength standards. The petitioner further claim that less wall tile than floor tile is produced in the United States, as ceramic products meeting the more rigorous standards for floor tile is also commonly used in wall applications.⁴⁸ The Respondents acknowledge that although floor tile can be used for wall applications, they note that the generally greater thickness makes it more difficult to mount floor tile on vertical surfaces.⁴⁹

According to the Respondents, mosaic tiles are individual “chips” mounted onto a mesh or other substrate material to be combined into larger pattern compositions, generally 12-inches by 12-inches square. The size, shape, and materials (porcelain or non-porcelain ceramic, stone, metal, or glass) of the chips, as well as the substrate material, vary by the specific design.⁵⁰ Mosaic tile is rarely used for flooring due to its higher retail price (4-5 times that of floor tile) and additional installation cost (due to the additional grout joints required).⁵¹ Moreover, mosaic tile is softer and less durable (being required to meet separate standards with lesser hardness, strength, and durability requirements) than floor tile.⁵² However, floor tile lacks the intricate patterns and other features of mosaic tile to create unique designs.⁵³ A key characteristic of mosaic and decorative tile is the production process, which is highly labor intensive, for example, the post-firing operations ***⁵⁴ and hand-packaging of individual pattern compositions to prevent breakage.⁵⁵ By contrast, floor tile is typically a uniform, single piece of ceramic, where the more automated production process is unsuited for high-quality, hand-made mosaic and design tile.⁵⁶ Hence, the Respondents claim that there is little if any

⁴⁷ Respondents’ postconference brief, exh. 1 “Response to staff questions,” p. 4.

⁴⁸ Petitioner’s postconference brief, exh. 1 “Respononses to Commission staff questions,” p. 1.

⁴⁹ Respondents’ postconference brief, exh. 1 “Response to staff questions,” p. 4.

⁵⁰ Respondents’ postconference brief, p. 20; exh. 1 “Response to staff questions,” p. 3; exh. 2 “Declaration of Scott Hassman, Jeffrey Court Inc.,” exh. 10 “Information on ceramic tile production process.”

⁵¹ Respondents’ postconference brief, p. 21; exh. 2 “Declaration of Scott Hassman, Jeffrey Court Inc.”

⁵² Respondents’ postconference brief, p. 21; exh. 2 “Declaration of Marisa Bedrosian, Dedrosian Tile & Stone,” conference transcript, pp. 134-135 (Bedrosian).

⁵³ Respondents’ postconference brief, p. 21.

⁵⁴ Respondents’ postconference brief, p. 20; exh. 1 “Response to staff questions,” p. 5; exh. 2 “***;” exh. 10 “Information on ceramic tile production process.”

⁵⁵ Respondents’ postconference brief, exh. 1 “Response to staff questions,” p. 6; exh. 10 “Packaging process.”

⁵⁶ Respondents’ postconference brief, p. 20; exh. 1 “Response to staff questions,” p. 5; exh. 2 “Declaration of Gary Heinz, Surfaces Inc.,” exh. 10 “Information on ceramic tile production process.”

production of mosaic tile in commercial-scale volumes in the United States.⁵⁷ Conversely, most of the petitioner, including *** claim that they also produce mosaic tile. Some other domestic firms, such as ***, produce mosaic tile through a subcontractor.⁵⁸

Porcelain ceramic tile is distinguished from other (“non-porcelain”) types of ceramic tile by lower porosity (water absorption) and other physical characteristics, more expensive raw materials, and higher firing temperatures and longer firing periods. Porcelain tile is distinguished from non-porcelain tile by its low porosity of 0.5 percent or less of water absorption. Various types of non-porcelain tile have higher porosities: vitreous tile (over 0.5 percent to 3 percent), semi-vitreous tile (over 3 percent to 7 percent), and non-vitreous tile (over 7 percent) water absorption.⁵⁹ Compared to non-porcelain tile, porcelain tile is generally harder to cut and harder to bond to the floor.⁶⁰ The raw-materials cost to produce porcelain tile can be as much as *** that for producing non-porcelain tile.⁶¹ Porcelain tile requires higher firing temperatures in the range of *** and longer firing periods in the range of *** with longer ranges of *** for 2 cm-thick tile. By contrast, non-porcelain tile requires firing times 5 to 30 minutes shorter and firing temperatures 50°C to 100°C (90°F to 180°F) lower than those for porcelain-tile firing.⁶²

Ceramic tile surfaces can be either glazed or unglazed. Non-porcelain tiles are usually glazed for enhanced surface durability. Glazed porcelain tile have filled micro-pores that would otherwise be present if the tile is left unglazed. Glazing renders porcelain tile surfaces both more durable and easier to clean, but unglazed porcelain tile offer greater slip resistance. Unglazed porcelain tile can be “through body” with the surface color extending uniformly through the thickness of the tile. Glazed surfaces can have different colors and patterns than the body of the porcelain tile but the glaze is usually sufficiently resistant enough to abrasion to not show surface wear.⁶³

⁵⁷ Respondents’ postconference brief, pp. 20-21.

⁵⁸ Petitioner’s postconference brief, exh. A “Responses to Commission staff questions,” pp. 3-4.

⁵⁹ Petition, p. 6.

⁶⁰ Tile Council of North America (“TCNA”), “FAQs Porcelain,” <https://www.tcnatile.com/faqs/59-porcelain.htm>, retrieved May 5, 2019.

⁶¹ According to ***, its raw-material costs for porcelain ceramic tile average \$*** per square foot compared to an average of \$*** per square foot for non-porcelain ceramic tile. Petitioner’s postconference brief, exh. A “Responses to Commission staff questions,” p. 20.

⁶² Petitioner’s postconference brief, exh. A “Responses to Commission staff questions,” pp. 5-6.

⁶³ TCNA, “FAQs Porcelain,” <https://www.tcnatile.com/faqs/59-porcelain.htm>, retrieved May 5, 2019.

Manufacturing processes⁶⁴

The manufacturing process for all ceramic tile consists of successive basic stages including: (1) raw-materials crushing, (2) mixing and milling, (3) spray drying, (4) shaping, (5) drying, (6) glazing and/or digital printing, (7) firing, and (8) post-firing operations. All ceramic tile is produced, regardless of where throughout the world, generally using the same basic production equipment, despite technological variations, for each step described below.⁶⁵

Raw-materials crushing

The raw materials for ceramic tile determine its properties. While ball clay and kaolin clay are common to all types of ceramic tile,⁶⁶ the amount and type of clay varies. The color of the ceramic tile is determined in part by the amount of the iron-containing raw materials, with iron-containing clays producing a red ceramic body and the absence of iron-containing clays producing a whitish ceramic body. Other minerals are added to impart specific properties, depending on the type of tile, forming process, and firing process:

- Silica (quartz) sand— added-in as a cost-effective filler material;
- Alkali-containing feldspar— lowers the melting temperature, enhances low melt viscosity, and allows for controlled sintering at high temperatures;
- Nepheline syenite— a source of alkalis;
- Talc— an “auxiliary flux” that controls size and promotes low and consistent shrinkage;
- Biotite— an accessory mineral contained in granite, which is a source of silica and feldspar, but does not provide a specific function.⁶⁷

The clays and other raw materials are pulverized down to suitable grain sizes for the subsequent mixing and milling operations.

Mixing and milling

The raw materials are mixed together and milled, either dry or wet, depending on the fanning process. The wet-mixing method is more common, in large mills that further reduce the particle size in preparation for spray-drying. Wet mixing can also be done for extrusion forming, wet-pressing, and slip-casting. Dry milling can be done where the subsequent forming operation does rely on spray-dried particles.

⁶⁴ Unless otherwise noted, this information is based on Petition, pp. 10-11.

⁶⁵ Petitioner’s postconference brief, p. 9; hearing transcript, p. 22-24 (Baran), p. 84 (Astrachan).

⁶⁶ Ball clay and kaolin clays also provide material strength in the unfired state, enhances pyroplasticity (stability) while firing, and maintains a steady sintering temperature in the kiln. Petitioner’s postconference brief, exh. A “Responses to Commission staff questions,” p. 5.

⁶⁷ Petitioner’s postconference brief, exh. A “Responses to Commission staff questions,” p. 5.

Spray drying

To obtain consistent particles for a high degree of quality control, the wet-milled mixture (slurry) is sprayed into a vertical tower with rising warm air. The high degree of process control results in a generally homogenous powder containing just enough moisture for the subsequent pressing (shaping) process.

Shaping

Tiles can be formed by various processes, depending on whether the material being formed is either wet or dry. The most common method is dry-pressing⁶⁸ of the ground particles by compression between dies, rollers, belts, or other means. In some instances, various powders are combined to create surface effects when pressed together. Wet clay can be formed by continuous extruding and cutting to size, pressing into a die, or pouring into a mold.

Drying

After being formed, the newly formed (“green”) tiles are allowed to dry, depending on their thickness and moisture content, usually in large dryers or low-temperature kilns. Drying can be either continuous or batch operations, being commonly fueled by natural-gas, oil, or coal, although infrared, microwave, or even excess heat from other operations are sometimes used.

Glazing and/or digital printing

The surface of the green tile can be decorated before firing by applying materials that bond with the surface when fired. There are various techniques to apply glazing materials from a simple waterfall coating the surface to spray applications, and now digital printing with glaze-like compounds. Surface decoration can also be applied prior to forming by adding dry powders that impart the decorative effects to the surface upon firing. Surfaces of fired tile also can be decorated before a secondary firing operation.

Firing

Conversion from a clay-containing mixture to a ceramic material through firing creates the properties associated with ceramic tile.⁶⁹ The time and temperature for firing the green tile depends on the raw-material composition and determines the finished properties. Heating and cooling is controlled to allow the various physical changes to take place. In the case of porcelain tiles, firing is sufficiently hot (typically, but not exclusively, between 2,100°F to 2,200°F) to

⁶⁸ In dry-pressing, the particles are not actually fully dry, but rather contain just enough moisture to hold together after pressing.

⁶⁹ While the crystallinity of the clay-containing mixture changes through the firing process, crystallinity itself is not a determinant of whether a material is ceramic.

drive-down the finished porosity (water absorption) to 0.5 percent or less. Firing can be accomplished in a single operation with the green tile and surface decoration fired together (i.e., “single-fired” or “monocottura”) in a roller-hearth kiln or in two or more subsequent firing operations depending on the pre-firing processes and desired decoration effects.⁷⁰ Depending on the firing process and raw materials used, the total time for firing and cooling can be under an hour or even requiring multiple days.⁷¹

Post-firing operations

Cooled ceramic tile undergoes various post-firing operations prior to shipment. Polished tiles are treated with abrasives in a polishing line to create a fine polish on the surface. Rectified tiles are trimmed on a cutting line to produce precisely sized tiles. Cutting may occur at the factory or offsite at another facility to produce more modular products. Very large-size tiles (referred to as “slabs” or “panels”) up to 5-feet by 15-feet or even larger can be cut at the factory but are also commonly shipped as-produced in such large sizes for subsequent cutting in a separate facility or even at a job site.

DOMESTIC LIKE PRODUCT ISSUES

No issues with respect to domestic like product have been raised in these investigations. The petitioner propose that the Commission define the domestic like product to be coextensive with the scope of the investigations.⁷² Respondents state that for the purposes of the preliminary investigations, they take no position on domestic like product and are not seeking a separate domestic like product.⁷³

⁷⁰ The shaping, glazing, and single-firing steps combined can require as little as an hour to complete. Because the single-firing process results in stronger and more-durable ceramic tile with a harder glazed surface that is less prone to peeling and cracking, monocottura tiles are suitable for interior floor tiles and outdoor applications. Build.com, “Monocottura vs. Bicottura Tiles, What’s the Difference?” <http://www.build.com.au/monocottura-vs-bicottura-tiles-whats-difference>, retrieved May 3, 2019.

⁷¹ The older, double-firing (“bicottura”) process— consisting of shaping and initial firing of unglazed tile, glazing, and second firing of glazed tile— can require several days to complete. Generally being softer than single-fired tile, double-fired tile is suitable for walls and back-splashes. Moreover, the protrusions (or “lugs”) often present on the back surface render bicottura tile less suitable for covering horizontal flooring surfaces. *Ibid.*

⁷² Petitioner’s postconference brief, p. 5 and conference transcript, p. 61 (Spooner).

⁷³ Respondents’ postconference brief, p. 4, and conference transcript, p. 164 (Kostrzewa), p. 176 (Stoel), and p. 215 (Stoel).

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

U.S. MARKET CHARACTERISTICS

Ceramic tile is used as a decorative covering on floor and walls, mostly in kitchens and bathrooms, as well as commercial spaces. U.S. demand for ceramic tile is driven primarily by demand in the construction sector, both for new homes and in the remodeling/removing and replacement (“R&R”). Like in the construction industry, demand for ceramic tile is seasonal, with peaks in the spring and fall, and valleys in the winter months. There are several substitutes for ceramic tile, particularly in flooring applications, including luxury vinyl tile (or “LVT”), carpet, wood (typically hardwood), and stone. Some importers cited LVT, in particular, as having taken market share from ceramic tile in recent years, due to its comparatively lower price and ease of installation.¹

Domestically produced ceramic tile and imports from China together comprised more than half of U.S. apparent consumption during 2016-18. Imports from nonsubject sources, primarily from Brazil, Mexico, Italy, and Spain, collectively accounted for nearly half of all apparent U.S. consumption from 2016 through 2018. U.S. producers supplied 30.5 percent of the U.S. market in 2016 and 2017, but that share fell to 28.5 percent in 2018. Imports from China as a share of U.S. apparent consumption increased from 20.4 percent in 2016 to 22.5 percent in 2018. Overall, apparent U.S. consumption of ceramic tile increased between 2016 and 2018, increasing by 7.5 percent during this time.

Five U.S. producers and 23 importers reported that there had not been significant changes in the product range, product mix, or marketing of ceramic tile since January 1, 2016. However, four U.S. producers and 14 importers did. Several of these firms noted a trend toward larger size tiles, an increase in the use of LVT, and advances in digital printing technology. Some firms also reported increased differentiation between ceramic tile produced for the commercial and residential market sectors.

Impact of section 301 investigation and tariffs

U.S. producers and importers were asked if the announcement in March 2018 and initial September 2018 implementation of tariff remedies in the section 301 investigation on Chinese trade practices (see Part I) had impacted or would impact their firm’s ceramic tile business and/or the ceramic tile market as a whole. Among U.S. producers, a plurality of firms reported that the announcement and tariffs had no impact: four of 9 responding firms reported no impact, 2 reported that they had an impact, and 3 reported that they did not know.² Among

¹ Petitioners testified that LVT has been in the market since 2012. Conference transcript, p. 69 (Astrachan).

² Petitioners testified that the section 301 tariffs have not had an impact on Chinese imports, and that imports of Chinese product have not decreased as a result of the section 301 tariffs. Conference transcript, p. 58 (Spooner). Petitioners’ postconference brief, attachment A, p. 14.

importers, most firms reported that the announcement and tariffs did have an impact: 20 of 38 responding firms reported that they had an impact, 9 reported that they had not, and 9 reported that they did not know.³

Firms were also specifically asked what the impact of the announcement and implementation of tariffs had been on overall demand and prices for ceramic tile in the U.S. market (table II-1). As shown in the table, most U.S. producers and importers reported that the announcement and tariffs did not change demand for ceramic tile in the U.S. market. While a plurality of U.S. producers reported that the announcement and tariffs did not change prices for ceramic tile in the U.S. market, most importers reported that they did.

**Table II-1
Ceramic tile: Changes reported by U.S. producers and importers on the impact of Section 301 announcement and tariffs**

Type of change	U.S. producers				U.S. importers			
	Increased	No change	Decreased	Fluctuated	Increased	No change	Decreased	Fluctuated
Overall demand	1	4	---	2	2	17	7	6
Price	2	3	1	1	21	7	0	5

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

CHANNELS OF DISTRIBUTION

U.S. producers sold a plurality of their product to big box/home center retailers, and importers sold the majority of their product to this channel, as shown in table II-2. U.S. producers sold larger shares to distributors and contractors/builders than did importers of ceramic tile from China. Both U.S. producers and importers of ceramic tile from China sold relatively similar shares to other retailers.

**Table II-2
Ceramic tile: U.S. producers' and importers' U.S. shipments, by sources and channels of distribution, 2016-18**

* * * * *

GEOGRAPHIC DISTRIBUTION

U.S. producers and importers reported selling ceramic tile to all regions in the contiguous United States (table II-3). For U.S. producers, 6.4 percent of sales were within 100 miles of their production facilities, 54.2 percent were between 101 and 1,000 miles, and 39.5

³ Respondents testified that the increase in imports from China is due in part to the Section 301 announcement and tariffs, as “market participants were trying to beat the 10 percent tariff increase that started in September of 2018 and the threat of 25 percent tariffs {that were to begin} in January 2019.” Conference transcript, p. 162 (Ginsberg), 178 (Lewis).

percent were over 1,000 miles. Importers sold 32.2 percent within 100 miles of their U.S. points of shipment, 56.2 percent between 101 and 1,000 miles, and 11.6 percent over 1,000 miles.

Table II-3
Ceramic tile: Geographic market areas in the United States served by U.S. producers and importers of Chinese ceramic tile

Region	U.S. producers	U.S. importers of Chinese ceramic tile
Northeast	9	20
Midwest	9	18
Southeast	9	22
Central Southwest	9	20
Mountain	8	17
Pacific Coast	8	20
Other ¹	6	16
All regions (except Other)	8	15
Reporting firms	9	30

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

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

SUPPLY AND DEMAND CONSIDERATIONS

U.S. supply

Table II-4 provides a summary of the supply factors regarding ceramic tile from U.S. producers and from China. In general, producers from both sources reported high (and increasing) inventories, and an inability to produce alternative products.

Table II-4
Ceramic tile: Supply factors that affect the ability to increase shipments to the U.S. market

Country	Capacity (1000s of square feet)		Capacity utilization (percent)		Ratio of inventories to total shipments (percent)		Shipments by market, 2018 (percent)		Able to shift to alternate products
	2016	2018	2016	2018	2016	2018	Home market shipments	Exports to non-U.S. markets	No. of firms reporting "yes"
United States	993,016	1,150,562	88.8	78.0	***	***	***	***	0 of 9
China	323,184	314,031	98.7	96.9	30.1	36.7	81.4	9.8	0 of 7

Note.--Responding U.S. producers accounted for the vast majority of U.S. production of ceramic tile in 2018. Responding foreign producer/exporter firms accounted a small share of U.S. imports of ceramic tile from China during 2018. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from each subject country, please refer to Part I, "Summary Data and Data Sources."

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

Domestic production

Based on available information, U.S. producers of ceramic tile have the ability to respond to changes in demand with moderately large changes in the quantity of shipments of U.S.-produced ceramic tile to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of increasing amounts of unused capacity and inventories. Factors mitigating responsiveness of supply include the limited ability to shift shipments from alternate markets and no reported ability to shift production to or from alternate products.

U.S. producers' capacity utilization decreased from 2016 to 2018, as production capacity rose.⁴ U.S. producers' total production increased between 2016 and 2017, then decreased between 2017 and 2018. U.S. producers' inventories as a share of total shipments increased from *** percent in 2016 to *** percent in 2018. U.S. producers' export shipments increased modestly between 2016 and 2018, but remained at approximately *** percent of total shipments throughout 2016-18.⁵ None of the responding U.S. producers reported being able to shift production to or from other products.

Subject imports from China

Based on available information, producers of ceramic tile from China have the ability to respond to changes in demand with large changes in the quantity of shipments of ceramic tile to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the substantial shipments of Chinese ceramic tile to the world, the ability to shift shipments from inventories, some ability to shift shipments from other non-U.S. markets, and the existence of several third-country trade actions. Factors mitigating responsiveness of supply include the limited availability of unused capacity (among responding Chinese producers) and the limited ability to shift production to or from alternate products.

Responding Chinese producers represented a small share of U.S. imports of ceramic tile from China. Overall Chinese exports of ceramic tile to the world are substantial, and might be potentially diverted to the U.S. market. See Part VII.

Five of 8 responding Chinese producers reported that the ceramic tile they export is subject to third-country trade actions (such as antidumping/countervailing duties, safeguard findings, or other remedies or proceedings). Four of these firms reported that ceramic tile from China is subject to antidumping duties from the European Union; *** reported that this duty has existed since 2008, while *** reported that it was implemented in 2012 and *** reported that it was implemented in September 2013. *** reported that antidumping duties on Chinese

⁴ Seven of the nine responding U.S. producers reported increases in capacity between 2016 and 2018, with most of the reported increase occurring in 2017.

⁵ U.S. producers' reported export markets were Canada (3 firms), Italy, and Mexico (1 firm each).

ceramic tile also exist for Brazil (2014), Korea (2014), and Thailand (2016).⁶ See Part VII for more information on third-country trade actions.

Imports from nonsubject sources

Imports from nonsubject sources accounted for between 68.5 percent (2018) and 70.6 percent (2016) of total U.S. imports during 2016-18. According to official import statistics, the largest sources of nonsubject imports were Mexico, Italy, and Spain. Combined, these countries accounted for approximately four-fifths of nonsubject imports in 2018.

Supply constraints

Most U.S. producers and importers indicated that they had not experienced any supply constraints since January 1, 2016. U.S. importer *** reported that it experienced production delays and shipping congestion due to supplier inventory shortages, and U.S. producer *** reported experiencing supply constraints because “Chinese costs are more competitive.”

At the staff conference, Bedrosians, an importer of ceramic tile from China and other sources and a purchaser of domestic ceramic tile, testified that between October 2016 and January 2019 one of the petitioning firms, ***, was unable to consistently supply it with product.⁷

U.S. demand

Based on available information, the overall demand for ceramic tile is likely to experience at least moderate changes in response to changes in price, particularly for flooring applications. The main contributing factors to this level of demand responsiveness are the availability of lower-cost substitute products (primarily luxury vinyl tile (or “LVT”), and the substantial share of final cost of the installed tile accounted for by installation costs.

End uses and cost share

The end uses for ceramic tile are primarily flooring and wall covering (mostly in kitchens and bathrooms). Other reported end uses include countertops, paving, and pool coping (a cap for the edge of the pool). Most responding firms reported, on average, that ceramic tile

⁶ Petitioners testified that several other countries have implemented or are in the process of investigating antidumping duties on Chinese ceramic tile, including the European Union, Indonesia, India, Mexico, the Philippines, South Korea, Saudi Arabia, and the United Arab Emirates. Conference transcript, pp. 14 (Spooner), 37-38 (Mattioli), 46 (Molina). Respondents described some of these measures as having been in place for many years, and added that in the case of Indian duties on Chinese product, eight Chinese producers received zero antidumping margins. Respondents’ postconference brief, exhibit 1, pp. 25-26.

⁷ Conference transcript, p. 132 (Bedrosian); Respondents’ postconference brief, ***.

accounts for roughly one-third of the cost of the specific end use application. Cost shares for floor covering ranged from 9.5-50 percent for most responding firms (for an average of 34.9 percent), while cost shares for wall covering ranged from 3 to 50 percent (for an average of 37.3 percent).⁸

Business cycles

Most responding firms (6 of 9 U.S. producers and 23 of 37 importers) reported that the ceramic tile market was not subject to business cycles or distinct conditions of competition. However, two U.S. producers and 11 importers reported that the market was subject to business cycles; most of them reported that the market follows the seasonal trends in the construction industry (with weaker demand in the winter months and stronger demand in spring and fall). One of 9 U.S. producers and 5 of 37 importers also reported that the ceramic tile market was subject to distinct conditions of competition. *** reported that the seasonality of the market was a distinct condition of competition, and importers *** reported that the use of substitutes such as luxury vinyl tile (“LVT”) was a distinct condition of competition. Importer *** reported that the cost of installation is a condition of competition, since “installation accounts for approximately 70 percent of the total project cost.” Importer *** reported that U.S. manufacturers’ investments in the southern states, and factory automation and other efficiencies that have “resulted in over production and lower production costs” are distinct conditions of competition.

Demand trends

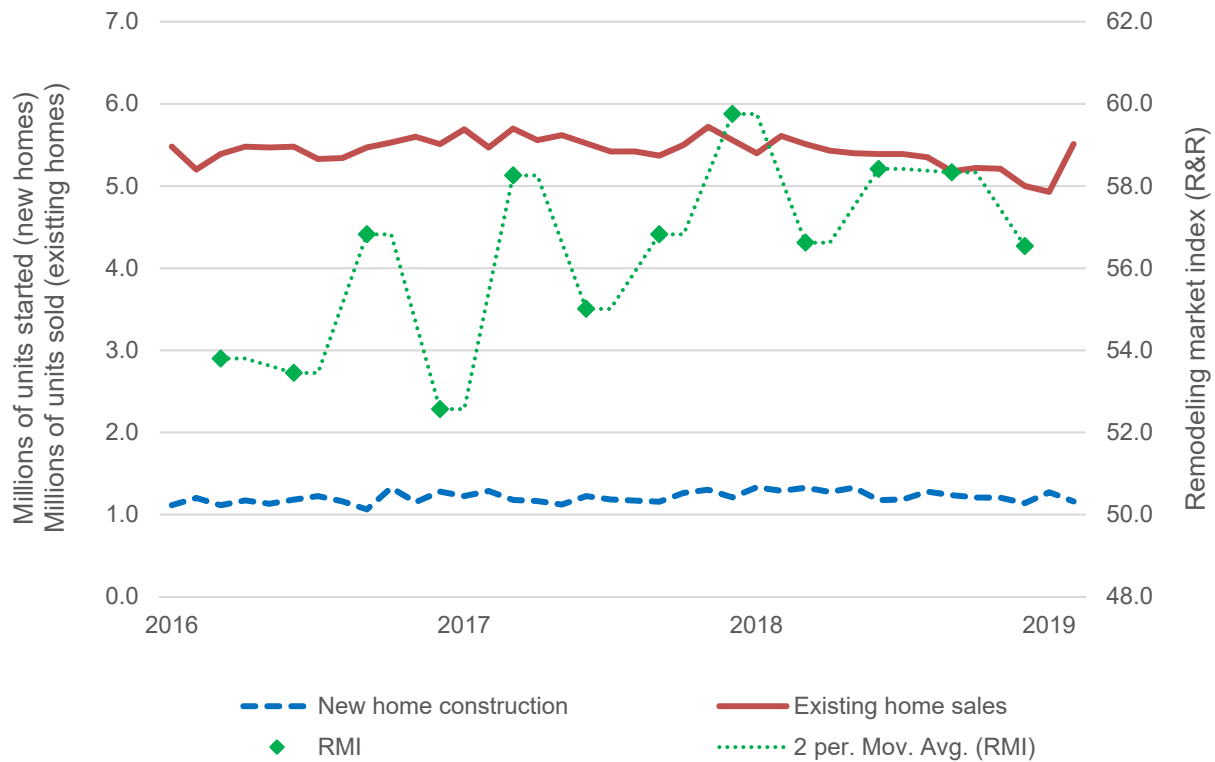
U.S. demand for ceramic tile is driven by demand in the construction sector, both for new homes and in the R&R sector.⁹ As shown in figure II-1, new home construction, existing home sales, and the remodeling market index for R&R activity have shown increases or relatively steady trends in recent years. New home construction increased from January 2016 to December 2018, while the remodeling market index (“RMI”) for R&R activity increased between the first quarter of 2016 and the last quarter of 2018. Existing home sales declined from January 2016 to December 2018. Overall, the number of new privately owned housing units started increased by 2.3 percent between January 2016 and December 2018, while the remodeling market index increased by 5.1 percent between the first quarter of 2016 and the last quarter of 2018. The number of existing home sales decreased by 8.8 percent between

⁸ For flooring, one firm also reported a cost share of 70 percent and another reported a cost share of 95 percent. For wall covering, one firm also reported a cost share of 69 percent, while another reported a cost share of 80 percent, and another reported a cost share of 95 percent. Nearly half of the responding firms reported cost shares of 100 percent, most likely due to an interpretation of cost share that was limited to the product itself and not the full cost of installation.

⁹ Petitioners state that “demand for ceramic tiles is driven by several broader economic indicators, including U.S. GDP growth, activity in home improvement, and housing construction/sales, among other factors.” Petition, pp. 19-21; Conference transcript, p. 32 (Curran).

January 2016 and December 2018. Between December 2018 and February 2019 (the latest month for which data were available), new home construction and existing home sales increased by 1.9 percent and 10.2 percent, respectively.

Figure II-1
Home construction, sales, and remodeling: New privately owned housing units started, seasonally adjusted, monthly, and existing home sales, seasonally adjusted annual rate, monthly, January 2016-February 2019; and remodeling market index,¹ quarterly, January 2016-December 2018



¹ The remodeling market index (RMI) is an average of two major component indices: current market conditions and future market indicators. For more on the components and methodology of RMI, see <https://www.nahb.org/en/research/housing-economics/housing-indexes/remodeling-market-index.aspx>.

Sources: Census Bureau; National Association of Realtors, <http://www.realtor.org/topics/existing-home-sales>; and National Association of Homebuilders, <https://www.nahb.org/en/research/housing-economics/housing-indexes/remodeling-market-index.aspx>, retrieved April 9, 2019.

Most firms reported that demand for ceramic tile in the United States has increased since January 1, 2016 (table II-5). In describing the demand increase, most firms pointed to strong housing and commercial construction markets as the reason.¹⁰ One U.S. producer and several importers also indicated that improvements in digital technology (which have improved the designs of ceramic tile) have helped increase demand for some ceramic tile products.

¹⁰ Petitioners testified that new home sales are “starting to level off,” and that they fear the upward trend in consumption of ceramic tile is “at the peak.” Conference transcript, p. 118 (Astrachan).

Among the firms reporting a decrease in demand, firms generally cited the availability of less expensive alternatives such as LVT and manufactured wood as the reason.

Table II-5

Ceramic tile: Firms' responses regarding U.S. demand and demand outside the United States

Item	Increase	No change	Decrease	Fluctuate
Demand in the United States				
U.S. producers	8	1	---	---
Importers	24	5	4	4
Demand outside the United States				
U.S. producers	4	1	1	2
Importers	13	5	2	7

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

Pluralities of U.S. producers and importers also reported an increase in demand for ceramic tile outside the United States. Firms cited strong construction activity and improvements in digital technology as reasons. Importer *** stated that non-U.S. markets have “significantly higher per capita usage of ceramic tile compared to the United States.” Among the firms reporting a decrease in demand outside the United States, *** cited a decline in Chinese and European housing markets.

Petitioners noted that the press release accompanying a January 2019 Leading Indicator of Remodeling Activity (“LIRA”) report states that “{a}nnual growth in the national market for home improvement and repair is expected to slow considerably by the end of the year.... ‘Continued slowdowns in homebuilding, sales of building materials, and remodeling permits all point to a more challenging environment for home remodeling in 2019.’”¹¹

Substitute products

Most firms (6 of 9 U.S. producers and 22 of 36 importers) reported that there are substitutes for ceramic tile. The most commonly listed substitutes in flooring applications were LVT (or vinyl, laminate, or linoleum tile generally), carpet, and wood (typically hardwood). Stone was also listed as a substitute in both flooring and wall applications, and glass and fiberglass (for baths) were listed as substitutes for wall applications. As to whether changes in the prices of these substitutes affected the price of ceramic tile, firms generally noted that the material and installation costs of LVT, vinyl, and laminate flooring is significantly less than ceramic tile. Some firms added that the lower price of LVT has increased its market share and forced ceramic tile suppliers to maintain or reduce prices in order to retain market share.¹²

¹¹ Joint Center for Housing Studies of Harvard University website, www.jchs.harvard.edu/press-releases/expected-gains-remodeling-spending-slide-lower-2019, retrieved April 16, 2019; Petition, pp. 27-28, and Exhibit I-12.

¹² At the staff conference, respondents testified that LVT has been the primary market disruptor for the ceramic tile industry, and that LVT’s market share has grown more than 20 percent per year. Conference transcript, pp. 135-137 (Bedrosian), 140-141 (Shah), 146 (Elmaagacli), 151 (Heinz), 156-157 (Manke), 162-163 (Ginsberg); Respondents’ postconference brief, pp. 22-26. Petitioners argue that LVT

(continued...)

SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported ceramic tile depends upon such factors as relative prices, quality (e.g., grade standards, defect rates, etc.), and conditions of sale (e.g., price discounts/rebates, lead times between order and delivery dates, reliability of supply, product services, availability of certain product types from different sources, etc.). Based on available data, staff believes that there is moderately high degree of substitutability between domestically produced ceramic tile and ceramic tile imported from subject sources. This assessment is subject to respondents' allegation that certain types of mosaic tile may be available in larger quantities and in greater variety from Chinese producers, and that they may be used in different applications than other types of tile (as wall covering compared to floor covering). Respondents estimate that mosaic wall tile accounts for 10-12 percent of the overall market for ceramic tile.¹³

Lead times

Ceramic tile is primarily sold from inventory. U.S. producers reported that 92.0 percent of their commercial shipments were sold from inventory, with lead times averaging 2 days.^{14 15} The remaining 8.0 percent of U.S. producers' commercial shipments were produced-to-order, with lead times averaging 40 days. Importers reported that 93.8 percent of their commercial shipments were sold from inventory, with lead times averaging just under 4 days. Importers reported that 5.1 percent of their shipments came from foreign manufacturers' inventories, with lead times averaging 48 days, and 1.1 percent was produced-to-order, with an average lead time of 77 days.

Factors affecting purchasing decisions

Purchasers responding to lost sales lost revenue allegations¹⁶ were asked to identify the main purchasing factors their firm considered in their purchasing decisions for ceramic tile. The major purchasing factors identified by firms included price (cited by 7 firms), style/design/trend (5 firms), and quality (4 firms). While price/total cost was the most frequently cited factor overall, trend/design/style was the most frequently mentioned first-most important factor (cited by 3 firms). Price/total cost was the most frequently mentioned second-most important

(...continued)

"remains a very small portion of domestic consumption," and that carpet, and not LVT, has taken market share from ceramic tile. Conference transcript, pp. 69-71 (Spooner, Astrachan).

¹³ Conference transcript, pp. 202-203 (Elmaagacli).

¹⁴ Some firms, such as ***, reported a lead time of zero days, presumably since these stores sell ceramic tile at their retail locations.

¹⁵ Petitioners testified that changes in design trends and styles are a major factor in influencing the product they hold in inventory. Conference transcript, pp. 115-117 (Curran, Spooner).

¹⁶ This information is compiled from responses by purchasers identified by Petitioners to the lost sales lost revenue allegations. See Part V for additional information.

factor (cited by 4 firms). Other factors firms considered as important were availability, exclusivity, lead time, production consistency, reliability, service, supply capability, and vendor capacity (1 firm each).

Changes in purchasing patterns

Purchasers were also asked about changes in their purchasing patterns from different sources since January 1, 2016 (table II-6). A plurality of firms (3 of 8) reported decreasing their purchases from domestic sources, while one firm reported increasing its domestic purchasers. An equal number of importers (2 each) reported decreasing and increasing their purchases of Chinese product. Most firms reported increasing their purchases from nonsubject sources.

Table II-6
Ceramic tile: Changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	---	3	1	2	1
China	---	2	2	1	2
All other countries	---	---	4	1	2
Sources unknown	4	---	1	---	---

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

Firms cited a variety of reasons for changes in their purchases, including changes in overall demand for ceramic tile, changes in demand for certain types of ceramic tile, costs, and diversification. Among the purchasers reporting a decrease in domestic purchases, firms cited the following reasons: “diversification away from one large supplier” (***) ; changes to styles and trends (***) ; and a decrease in demand for floor tile (***) . ***, the firm reporting an increase in domestic purchases, also reported increases in its purchases from subject and nonsubject sources, citing a rise in competition in floor tile from the European Union and Brazil. Reasons cited for increasing purchases of Chinese product included an increase in demand for mosaic tile (***) and changes to styles and trends (***) . Reasons reported for decreasing purchases of Chinese product were increased prices and shipping costs (***) . Reasons reported for increasing purchases of nonsubject product were an increase in competitive pricing and shipping costs (***) , and changes to styles and trends (***) .

Comparison of U.S.-produced and imported ceramic tile

In order to determine whether U.S.-produced ceramic tile can generally be used in the same applications as imports from China, U.S. producers and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-7, most U.S. producers reported that ceramic tile from all sources can always be used interchangeably, while most importers reported that they can either frequently or sometimes be used interchangeably.

Table II-7

Ceramic tile: Interchangeability between ceramic tile produced in the United States and in other countries, by country pair

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting			
	A	F	S	N	A	F	S	N
U.S. vs. subject country: U.S. vs. China	5	3	1	---	8	11	16	---
Nonsubject countries comparisons: U.S. vs. nonsubject	6	3	---	---	9	14	9	---
China vs. nonsubject	5	1	---	---	7	9	11	2

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

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

In additional comments, U.S. producer *** reported that quality can limit interchangeability. Among importers, the factors that may limit interchangeability included quality, size, design, availability, price, and tile format. Some firms noted that purchasers may have a preference for certain sources (such as Italy), and that in these circumstances such tile is not interchangeable with other sources (such as China). Several firms stated that mosaic tile is not typically available in sufficient quantities from domestic producers. *** also noted that porcelain and non-porcelain tile is not interchangeable in certain applications (such as outdoors or in low temperatures), and *** stated that interchangeability depends on the body type of the tile and whether or not a product passes various rating tests (for water absorption, breaking strength, and other factors).

In addition, U.S. producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of ceramic tile from the United States, subject, or nonsubject countries. As seen in table II-8, a plurality of U.S. producers reported that differences other than price were always significant while most importers reported that differences other than price were either frequently or sometimes significant when comparing U.S. and Chinese ceramic tile.

Table II-8

Ceramic tile: Significance of differences other than price between ceramic tile produced in the United States and in other countries, by country pair

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting			
	A	F	S	N	A	F	S	N
U.S. vs. subject country: U.S. vs. China	4	1	1	3	7	11	11	6
Nonsubject countries comparisons: U.S. vs. nonsubject	---	2	4	3	3	10	15	4
China vs. nonsubject	---	1	1	1	5	9	8	3

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

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

In additional comments, U.S. producers *** listed availability, technical support, and product range as important non-price factors. Among importers, several firms listed the availability of mosaic tile from China (and lack thereof from domestic producers) an important non-price factor. Several importers stated that Chinese product offers newer styles and innovations, as well as certain sizes, varieties, styles, and matching components that domestic producers do not. One firm reported that domestic producers “are exclusive and limit relationships with distributors,” while another reported that domestic producers require large minimum order quantities. One firm also reported that lower quality and high freight rates for Chinese product limits its impact in the market.

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

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

U.S. PRODUCERS

The Commission issued a U.S. producer questionnaire to 29 firms based on information contained in the petition, and publicly available sources. Nine firms provided usable data on their productive operations.¹ Staff believes that these responses represent the vast majority of U.S. production of ceramic tile in 2018.²

Table III-1 lists U.S. producers of ceramic tile, their production locations, positions on the petition, and shares of total production.³

¹ One firm, *** reported that it had not produced ceramic tile at any time since January 1, 2016.

² Based on data from *** and ***.

³ Dal-Tile has several brands of ceramic tile, including Dal-Tile, American Olean, Marazzi, and Ragno, which ***. <https://www.daltile.com/why-daltile/company/about-us/company-information/investor-relations>, accessed May 9, 2019 and email from ***, April 25, 2019.

Table III-1

Ceramic tile: U.S. producers of ceramic tile, their positions on the petition, production locations, and shares of reported production, 2018

Firm	Position on petition	Production location(s)	Share of production (percent)
American Wonder	*** ¹	Lebanon, TN	***
Crossville	Petitioner	Crossville, TN Crossville, TN	***
Dal-Tile	Petitioner	Dickson, TN Sunnyvale, TX El Paso, TX Gettysburg, PA Muskogee, OK Florence, AL	***
Del Conca	Petitioner	Loudon, TN	***
Florida Tile	Petitioner	Lawrenceburg, KY	***
Florim	Petitioner	Clarksville, TN	***
Interceramic	***	Garland, TX	***
Landmark	Petitioner	Mount Pleasant, TN	***
Stonepeak	Petitioner	Crossville, TN	***
Total			***

¹ American Wonder is a petitioner ***. Email from ***, April 29, 2019.

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

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

Table III-2

Ceramic tile: U.S. producers' ownership, related and/or affiliated firms

* * * * *

As indicated in table III-2, one U.S. producer (***) is related to a manufacturer of ceramic tile in China and one U.S. producer (***) is related to a U.S. importer of ceramic tile from China. In addition, as discussed in greater detail below, three U.S. producers (***) directly import ceramic tile from China. Seven U.S. producers are related to manufacturers of ceramic tile in countries other than China, and eight import ceramic tile from countries other than China.

Table III-3 presents a timeline of major developments in the domestic ceramic tile industry since January 1, 2016.

Table III-3
Ceramic tile: Important industry events since January 1, 2016

Date	Firm	Event description
March 2016	Dal-Tile	Opened a new facility in Dickson, Tennessee, capable of producing high-end, large-size porcelain tile, that the firm previously imported, along with applying various post-firing finishing applications. ¹
June 2016	Atlas Concord USA	Opened a new production facility in Franklin, Tennessee, which is also the location for its showroom and distribution center. ²
***	Landmark	*** ³
November 2015	Florida Tile	Announced expansion plans for its facility in Lawrenceburg, Kentucky, with the new kiln, rectification line, and section line for packaging reportedly completed in 2016. ⁴
December 2016	Del Conca	Started-up two new production lines, each with a large-scale press, and a new kiln at its facility in Loudon, Tennessee, not only expanded capability to produce wider ranges of tile sizes and styles but also doubled production capacity from 32 million square-feet per year to 65 million square-feet per year. ⁵ This capital investment of over \$30 million that also created 40 new jobs, reportedly "...to capitalized on the growing demand in the U.S. market..." ⁶
***	Del Conca	*** ⁷
April 2017	American Wonder	Opened a new production facility in Lebanon, Tennessee. ⁸
June 2017	Dal-Tile	Announced plans for a second facility in Dickenson TN, with construction scheduled to begin in summer 2017 and operations scheduled to begin in late-2018. ⁹
March 2018	Florim	Sought zoning approval for constructing a new 420,000 square-foot warehouse at its Calrksville, Tennessee facility, ¹⁰ but the previously planned construction was subsequently postponed, being attributed to a recent downturn in sales. ¹¹
June 2018	Wedi North America	Opened a new production facility in Batavia, Illinois. ¹²
September 2018	Stonepeak	Started-up a new jumbo kiln that will expand production by 20 percent at its new production facility in Crossville Tennessee. ¹³
December 2018	Portobello America	Announced a planned \$150-million investment to construct a new facility in Baxer Tennessee, with production anticipated to commence in 2021. ¹⁴ The new facility ***. ¹⁵

Notes continued on next page.

¹ Respondents' postconference brief, exh. 4-A *The Tennessean*, "Dal-Tile Building Second Dickson Plant, Nearly 250 New Jobs Expected, June 22, 2017; exh. 5 Chevalier, Jessica, "Ceramic Tile Report, the U.S. Ceramic tile Market Continues to Reinvent Itself," *Floor Daily*, March 2017.

² Respondents' postconference brief, p. 8; *Floor Daily*, "Atlas Concorde to Open U.S. Tile Plant in Franklin, Tennessee in June," April 19, 2016, <https://www.floordaily.net/flooring-news/atlas-concorde-to-open-us-tile-plant-in-franklin>; Moore, Lauren, "Atlas Concorde Sets Up Production Stateside," *Floor Covering Weekly*, August 9, 2018, <https://www.floorcoveringweekly.com/main/topnews/atlas-concorde-sets-up-production-stateside-24079>.

³ Petitioners' postconference brief, attachment A "Responses to Commission staff questions," p. 22.

⁴ Respondents' postconference brief, exh. 5 Chevalier, Jessica, "Ceramic Tile Report, the U.S. Ceramic tile Market Continues to Reinvent Itself," *Floor Daily*, March 2017; Area Development Newsdesk, "Florida Tile Expands Its Lawrenceburg, Kentucky, Manufacturing-Distribution Hub," November 9, 2015, <https://www.areadevelopment.com/newsitems/11-9-2015/florida-tile-distribution-center-lawrenceburg-kentucky892348.shtml>.

⁵ Respondents' postconference brief, exh. 4-F "Del Conca USA, About Us"; exh. 5: Chevalier, Jessica, "Ceramic Tile Report, the U.S. Ceramic tile Market Continues to Reinvent Itself," *Floor Daily*, March 2017; *Stoneworld*, "Del Conca USA Doubles Capacity at Facility in Tennessee," May 4, 2016, <https://www.stoneworld.com/articles/88882-del-conca-usa-doubles-capacity-at-facility-in-tennessee>; SACMI Group, "Del Conca USA Doubles Its Output Capacity," February 10, 2017, <http://www.sacmi.com/en-US/News-Area/News-by-Business/Ceramics/Del-Conca-USA-doubles-its-output-capacity.aspx?idC=61115&idO=26458&LN=en-US>.

⁶ Respondents' postconference brief, p. 9; Conference transcript, p. 44 (Haynes).

⁷ Petitioners' postconference brief, attachment A "Responses to Commission staff questions," p. 21.

⁸ Petitioners' postconference brief, attachment A "Responses to Commission staff questions," p. 22-23; Respondents' postconference brief, exh. 1 "Response to staff questions," p. 21; exh. 2 "Declaration of Marisa Bedrosian, Bedrosians Tile & Stone," attachment 2 "New State-of-the-Art Tile Manufacturing Plants Opens in Lebanon," April 13, 2017; exh. 5 Chevalier, Jessica, "Ceramic Tile Report: The U.S. Ceramic Tile Market Continues to Reinvent Itself," *Floor Daily*, March 2017.

⁹ Respondents' postconference brief, exh. 4-A *The Tennessean*, "Dal-Tile Building Second Dickson Plant, Nearly 250 New Jobs Expected, June 22, 2017.

¹⁰ Settle, Jimmy, "Clarksville Florim Ceramic Tile Plant Seeks Rezoning for Expansion," Leaf Chronicle, USA Today Network, March 28, 2018, <https://www.theleafchronicle.com/story/news/local/clarksville/2018/03/28/clarksville-florim-ceramic-tile-plant-seeks-rezoning-expansion/467519002/>.

¹¹ Petitioners' postconference brief, attachment A "Responses to Commission staff questions," p. 22; conference transcript, p. 43 (Haynes).

¹² Respondents' postconference brief, p. 8; Goddin, Lesley, "Wedi North America Celebrates Official Factory Grand Opening in the United States," *Tile Letter*, June 12, 2018, <http://tileletter.com/2018/06/wedi-north-america-celebrates-official-factory-grand-opening-in-the-united-states/>.

¹³ Respondents' postconference brief, exh. 1 "Response to staff questions," pp. 20-21; exh. 2 "Declaration of Marisa Bedrosian, Bedrosians Tile & Stone," attachment 2 "Stonepeak Ceramics Open New Production Line in Tennessee Location."

¹⁴ Respondents' postconference brief, exh. 1 "Response to staff questions," pp. 21-23; exh. 2 "Declaration of Marisa Bedrosian, Bedrosians Tile & Stone," attachment 3 "Brazil's Biggest Ceramic Tile Maker Plans \$150 Million Plant Near Cookeville, Tennessee," *Times Free Press*, December 4, 2018; exh. 7 ***; exh. 7 "Portobello America Chooses Tennessee for First U.S. Production Facility," *Business Facilities*, December 3, 2018.

¹⁵ Petitioners' postconference brief, exh. A.8 ***.

Source: References cited: Petitioners' postconference brief, attachment A "Responses to Commission staff questions;" Respondents' postconference brief, exh. 1 "Response to staff questions;" corporate, local news, and industry publication Internet websites.

Table III-4 presents U.S. producers' reported changes in operations since January 1, 2016.

Table III-4
Ceramic tile: U.S. producers' reported changes in operations, since January 1, 2016

* * * * *

U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-5 and figure III-1 present U.S. producers' production, capacity, and capacity utilization.⁴ Capacity increased in each year, ending 15.9 percent higher in 2018 than in 2016. All firms except *** had higher capacity in 2018 than in 2016, with three U.S. producers (American Wonder, Dal-Tile, and Landmark) starting new facilities.⁵ U.S. production was 1.7 percent higher in 2018 than in 2016, increasing 12.0 percent in 2017, but declining 9.2 percent in 2018. While all reporting U.S. producers increased production in 2017, only *** reported increased production in 2018. U.S. producers' capacity utilization was stable between 2016 and 2017, but decreased by 10.8 percent from 2017 to 2018.⁶ Only *** capacity utilization was higher in 2018 than in 2017.

⁴ There were no other products produced on the same equipment as ceramic tiles. One producer, ***, responded that it had "a very small volume {of tolling} that is sent to third party to be modified, the volume is insignificant." Some of these products are sent to third party to be cut or to apply a "special glaze." Tollers were: ***. U.S. producer questionnaires, II-4.

⁵ Conference transcript, p. 16 (Lewis) and "Ceramic: Suppliers ramp up domestic production, capacity," Floor Covering News, July 5, 2017, found at <https://fcnews.net/2017/07/ceramic-suppliers-ramp-up-domestic-production-capacity/>, accessed on May 13, 2019.

⁶ The petitioner stated that a capacity utilization of less than 90 percent reduces the return on investment {to a point a firm} would not build a ceramic tile production facility in the United States. Conference transcript, pp. 23-24 (Baran).

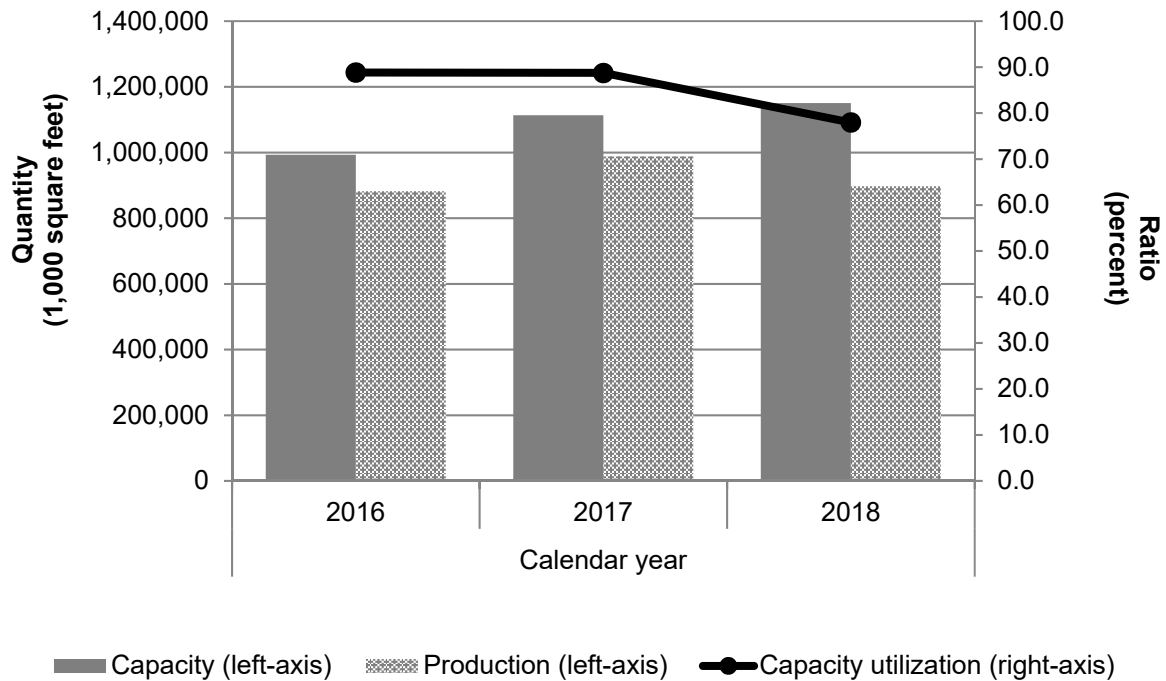
Table III-5

Ceramic tile: U.S. producers' production, capacity, and capacity utilization, 2016-18

Item	Calendar year		
	2016	2017	2018
	Capacity (1,000 square feet)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Total capacity	993,016	1,113,375	1,150,562
Production (1,000 square feet)			
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Total production	882,052	987,885	897,043
Capacity utilization (percent)			
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Average capacity utilization	88.8	88.7	78.0

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

Figure III-1
Ceramic tile: U.S. producers' production, capacity, and capacity utilization, 2016-18



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

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

Table III-6 presents U.S. producers' U.S. shipments, export shipments, and total shipments.⁷ ⁸ U.S. shipments increased by 5.6 percent in 2017 and declined by 4.9 percent in 2018, ending 0.4 percent higher in 2018 than in 2016. All firms other than *** reported higher U.S. shipments in 2017, while all firms other than *** reported lower U.S. shipments in 2018.⁹ *** accounted for the majority of the exports reported by five U.S. producers. The decline in *** exports during 2016-18 was offset by the increase in exports by ***.

⁷ Three firms (***) reported transfers to related firms, accounting for ***. Three firms (***) reported internal consumption, accounting for ***. ***.

⁸ There were no U.S. producers' U.S. shipments that required further processing before end use.

⁹ *** noted that it lost sales in 2018 including to its biggest customer, ***. ***'s Lost Sales/Lost Revenue questionnaire, conference transcript, p. 43 (Haynes), and staff telephone interview with ***. See Part VI for further information.

Table III-6
Ceramic tile: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2016-18

Item	Calendar year		
	2016	2017	2018
	Quantity (1,000 square feet)		
U.S. shipments	872,121	921,263	875,750
Export shipments	***	***	***
Total shipments	***	***	***
	Value (1,000 dollars)		
U.S. shipments	1,186,058	1,260,844	1,219,293
Export shipments	***	***	***
Total shipments	***	***	***
	Unit value (dollars per square foot)		
U.S. shipments	1.36	1.37	1.39
Export shipments	***	***	***
Total shipments	***	***	***
	Share of quantity (percent)		
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	100.0	100.0	100.0
	Share of value (percent)		
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	100.0	100.0	100.0

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

U.S. PRODUCERS' INVENTORIES

Table III-7 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments. Overall, U.S. producers' end-of-period inventories increased by 27.2 percent between 2016 and 2018, increasing by 22.5 percent in 2017 and by 3.8 percent in 2018. All U.S. producers other than *** had higher end-of-period inventories in 2018 than in 2016. The ratio of inventories to total shipments increased by *** percentage points between 2016 and 2018.

Table III-7
Ceramic tile: U.S. producers' inventories, 2016-18

Item	Calendar year		
	2016	2017	2018
	Quantity (1,000 square feet)		
U.S. producers' end-of-period inventories	256,112	313,796	325,810
	Ratio (percent)		
Ratio of inventories to--			
U.S. production	29.0	31.8	36.3
U.S. shipments	29.4	34.1	37.2
Total shipments	***	***	***

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

U.S. PRODUCERS' IMPORTS AND PURCHASES

U.S. producers' imports of ceramic tile are presented in table III-8.¹⁰ Three U.S. producers (***) directly import the subject merchandise. ***,¹¹ Dal-Tile, the largest U.S. producer, imported ceramic tile from China the equivalent of *** percent of its U.S. production during 2016-18 in order to compete with lower priced imports from China.¹² *** imported ceramic tile from China the equivalent of *** of its U.S. production. ***.¹³

¹⁰ Four U.S. producers (***) purchased ceramic tile during 2016-18. ***, ***.

¹¹ Petitioner' postconference brief, Exh. 1, p. 23.

¹² Conference transcript, p. 64 (Mattioli).

¹³ Email from ***, May 3, 2019 and email from ***, May 1, 2019.

Table III-8
Ceramic tile: U.S. producers' U.S. production and imports, 2016-18

* * * * *

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-9 shows U.S. producers' employment-related data. The number of production and related workers ("PRWs") increased by 15 PRWs during 2016-18. *** decline was offset by higher employment at all other U.S. producers except ***, with most of the increase due to ***. U.S. producers' wages paid, hourly wages, productivity, and unit labor costs increased, while total hours worked and hours worked per employee decreased between 2016 and 2018.

Table III-9
Ceramic tile: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2016-18

Item	Calendar year		
	2016	2017	2018
Production and related workers (PRWs) (number)	2,961	3,120	2,976
Total hours worked (1,000 hours)	6,454	6,821	6,331
Hours worked per PRW (hours)	2,180	2,186	2,127
Wages paid (\$1,000)	160,620	174,373	167,142
Hourly wages (dollars per hour)	\$24.89	\$25.56	\$26.40
Productivity (square feet per hour)	136.7	144.8	141.7
Unit labor costs (dollars per square foot)	\$0.18	\$0.18	\$0.19

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

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

U.S. IMPORTERS

The Commission issued importer questionnaires to 160 firms believed to be importers of ceramic tile, as well as to all U.S. producers of ceramic tile.¹ Usable questionnaire responses were received from 39 companies, representing approximately 61.9 percent of U.S. imports from China in 2018 under HTS subheading 6907.² Table IV-1 lists all responding U.S. importers of ceramic tile from China and other sources, their locations, and their shares of U.S. imports, in 2018.

**Table IV-1
Ceramic tile: U.S. importers by source, 2018**

Firm	Headquarters	Share of imports by source (percent)		
		China	Nonsubject sources	All import sources
American Wonder	Lebanon, TN	***	***	***
Anatolia	Vaughan - Canada, ON	***	***	***
Bedrosians	Fresno, CA	***	***	***
Bellavita Tile Inc.	Dallas, TX	***	***	***
C and C Cabinet	Honolulu, HI	***	***	***
Continental	Compton, CA	***	***	***
Crossville	Crossville, TN	***	***	***
Dal-Tile	Dallas, TX	***	***	***
Del Conca	Loudon, TN	***	***	***
Tile International	Humacao, PR	***	***	***
Designker	Placentia, CA	***	***	***
East Coast	Syracuse, NY	***	***	***
EV Materials	Anaheim, CA	***	***	***
FD Sales Company, LLC	Smyrna, GA	***	***	***
Florida Tile	Lexington, KY	***	***	***
Florim	Clarksville, TN	***	***	***
Florim Solutions	Clarksville, TN	***	***	***

Table continued on next page.

¹ The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data provided by U.S. Customs and Border Protection (“Customs”), may have accounted for more than one percent of total imports under HTS headings 6907 or 6908 during 2016-18.

² In addition, four firms provide partial responses to the U.S. importer questionnaire, and so are not included in this report. ***.

Table IV-1--Continued
Ceramic tile: U.S. importers by source, 2018

Firm	Headquarters	Share of imports by source (percent)		
		China	Nonsubject sources	All import sources
GBI Tile	Huntington Beach, CA	***	***	***
Gluck	Doral, FL	***	***	***
Golden	Honolulu, HI	***	***	***
Home Depot	Atlanta, GA	***	***	***
Interceramic	Carrollton, TX	***	***	***
Jeffrey Court	Norco, CA	***	***	***
Kertiles	Miami, FL	***	***	***
KZ Kitchen	San Jose, CA	***	***	***
Landmark	Mount Pleasant, TN	***	***	***
Luxterra	Miami, FL	***	***	***
Magic Village	Orlando, FL	***	***	***
Merola	Manalapan, NJ	***	***	***
Mohawk	Calhoun, GA	***	***	***
MS International	Orange, CA	***	***	***
Polus	Houston, TX	***	***	***
Stone Pride	Anaheim, CA	***	***	***
StonePeak	Chicago, IL	***	***	***
Styleaccess	Carrollton, TX	***	***	***
Surfaces Southeast	Miami, FL	***	***	***
Tile Outlets	Atlanta, GA	***	***	***
Tile Shop	Guaynabo, PR	***	***	***
Vitromex	San Antonio, TX	***	***	***
Total		***	***	***

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

U.S. IMPORTS

Table IV-2 and figure IV-1 present data for U.S. imports of ceramic tile from China and all other sources.^{3 4 5} The quantity of U.S. imports from China, the largest source in any one year during 2016-18, increased 18.6 percent between 2016 and 2018, increasing 12.7 percent in 2017 and 5.3 percent in 2018. U.S. imports from China, by value, increased 21.0 percent between 2016 and 2018, increasing 13.8 percent in 2017 and 6.4 percent in 2018.⁶ U.S. imports from nonsubject sources, by quantity, increased 7.2 percent between 2016 and 2018, increasing 2.7 percent in 2017 and 4.4 percent in 2018. U.S. imports from the largest sources exhibited different trends. The largest nonsubject source, Mexico, declined in each year during 2016-18, ending 85.1 million square feet, or 18.3 percent lower in 2018 than in 2016, and U.S. imports from Italy, the second largest source, also declined, by 25.5 million square feet or 6.6 percent, while U.S. imports from Spain, the third largest source, increased by 126.0 million square feet or 68.4 percent and the fourth largest source, Brazil, increased 60.3 million square feet or 60.7 percent. The petitioner and respondents stated that the decline in U.S. imports from Mexico were the result of increased demand in Mexico, coupled with increased freight costs, and decline in demand in the United States for red body tile, the predominant ceramic tile produced in Mexico.⁷

³ U.S. imports are based on official statistics of the U.S. Department of Commerce under HTS subheadings for 2016: 6907.10, 6907.90, 6908.10, and 6908.90, and for 2017; and for 2018: 6907.21, 6907.22, 6907.23, 6907.30, 6907.40, 6908.10, and 6908.90.

U.S. imports from Hong Kong were included in imports from China. Petitioner and respondents noted that there is no significant production in Hong Kong. Respondents' postconference brief, Exh. 1, p. 32 and conference transcript, p. 187 (Elmaagacli) and p. 188 (Lewis).

⁴ There were no U.S. imports of ceramic tile that required further processing before end use.

⁵ Five firms reported imports from China and four firms reported imports from all other sources under HTS subheadings other than 6907 and 6908. These imports were less than 0.5 percent of the quantity of U.S. imports of ceramic tile from China or all other sources, and less than 1.1 percent of the value of such imports, in any year during 2016-18. These imports included decorative wall tiles, decorative mosaics on a mesh backing (which may also contain non-ceramic tile material), and large porcelain slabs.

⁶ The majority of the decline of the reported imports were due to the largest importers. ***. Email from ***, May 7, 2019.

***. Email from ***, May 8, 2019.

***. Email from ***, April 30, 2019.

⁷ Conference transcript, pp. 58-59 (Spooner), p. 66 (Baran), p. 184 (Hansan), and p. 185 (Shah), and petitioner' postconference brief, Exh. 1 pp. 16-17.

The average unit values of imports from nonsubject sources in aggregate were higher than those for imports from China in each year during 2016-18. The average unit values for imports from Italy and Spain were consistently higher during 2016-18, while the average unit values of imports from Brazil and Mexico were lower than U.S. imports from China during 2016-18. Petitioner and respondents noted that it is difficult to compare average unit values from different sources given the mix of products.⁸

The ratio of U.S. imports from China to U.S. production increased by 11.1 percentage points during 2016-18, increasing by 0.4 percentage points in 2017 and by 10.7 percentage points in 2018. The ratio of U.S. imports from nonsubject sources to U.S. production increased by 8.5 percentage points between 2016 and 2018, declining by 13.3 percentage points in 2017 but increasing by 21.8 percentage points in 2018.

Table IV-2
Ceramic tile: U.S. imports by source, 2016-18

Item	Calendar year		
	2016	2017	2018
	Quantity (1,000 square feet)		
U.S. imports from.--			
China	583,383	657,204	692,147
Brazil	99,309	111,215	159,576
Italy	385,551	378,766	360,060
Mexico	464,227	397,476	379,093
Spain	184,240	244,835	310,208
All other sources	270,648	309,294	295,849
Nonsubject sources	1,403,975	1,441,585	1,504,786
All import sources	1,987,359	2,098,789	2,196,933
	Value (1,000 dollars)		
U.S. imports from.--			
China	517,431	588,915	626,340
Brazil	63,461	77,595	101,396
Italy	750,824	747,414	709,899
Mexico	265,226	219,953	230,421
Spain	244,356	307,299	359,297
All other sources	255,713	276,644	270,689
Nonsubject sources	1,579,579	1,628,906	1,671,702
All import sources	2,097,011	2,217,820	2,298,042

Table continued on next page.

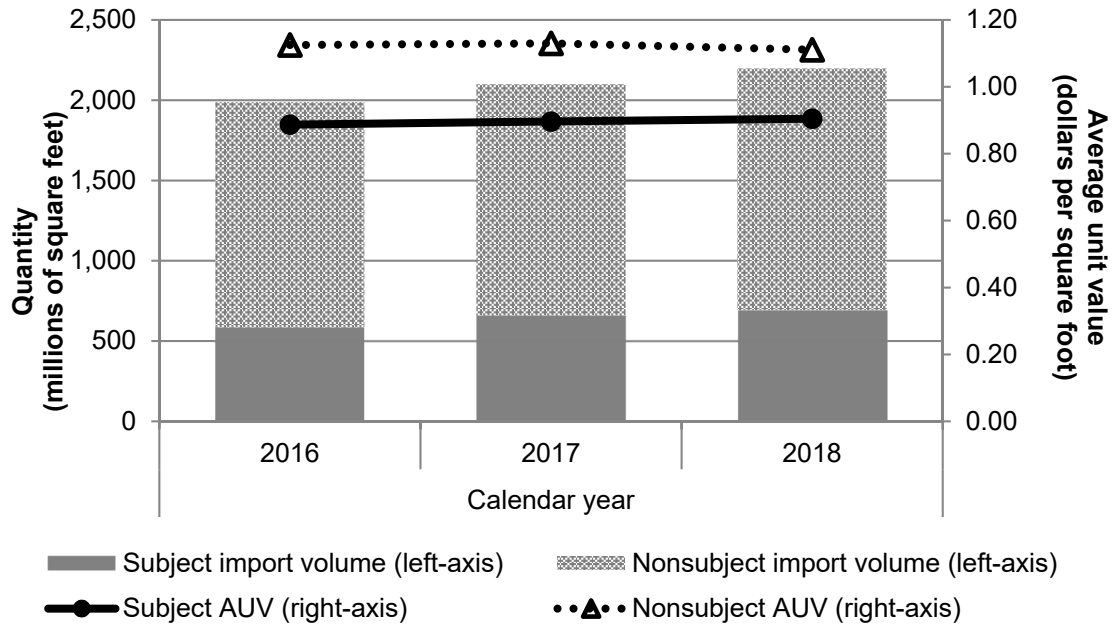
⁸ Conference transcript, p 179 (Shah), petitioner' postconference brief, Exh. 1 pp. 17-19.

Table IV-2--Continued
Ceramic tile: U.S. imports by source, 2016-18

Item	Calendar year		
	2016	2017	2018
	Unit value (dollars per square foot)		
U.S. imports from.-- China	0.89	0.90	0.90
Brazil	0.64	0.70	0.64
Italy	1.95	1.97	1.97
Mexico	0.57	0.55	0.61
Spain	1.33	1.26	1.16
All other sources	0.94	0.89	0.91
Nonsubject sources	1.13	1.13	1.11
All import sources	1.06	1.06	1.05
	Share of quantity (percent)		
U.S. imports from.-- China	29.4	31.3	31.5
Brazil	5.0	5.3	7.3
Italy	19.4	18.0	16.4
Mexico	23.4	18.9	17.3
Spain	9.3	11.7	14.1
All other sources	13.6	14.7	13.5
Nonsubject sources	70.6	68.7	68.5
All import sources	100.0	100.0	100.0
	Share of value (percent)		
U.S. imports from.-- China	24.7	26.6	27.3
Brazil	3.0	3.5	4.4
Italy	35.8	33.7	30.9
Mexico	12.6	9.9	10.0
Spain	11.7	13.9	15.6
All other sources	12.2	12.5	11.8
Nonsubject sources	75.3	73.4	72.7
All import sources	100.0	100.0	100.0
	Ratio to U.S. production		
U.S. imports from.-- China	66.1	66.5	77.2
Brazil	11.3	11.3	17.8
Italy	43.7	38.3	40.1
Mexico	52.6	40.2	42.3
Spain	20.9	24.8	34.6
All other sources	30.7	31.3	33.0
Nonsubject sources	159.2	145.9	167.7
All import sources	225.3	212.5	244.9

Source: Compiled from official import statistics of the U.S. Department of Commerce under HTS headings 6907 and 6908 accessed April 18, 2019.

Figure IV-1
Ceramic tile: U.S. imports by source, 2016-18



Source: Compiled from official import statistics of the U.S. Department of Commerce under HTS headings 6907 and 6908 accessed April 18, 2019.

Table IV-3 presents U.S. producers' U.S. imports from China and all other sources during 2016-18.

Table IV-3
Ceramic tile: U.S. producers' U.S. imports by source, 2016-18

Item	Calendar year		
	2016	2017	2018
	Quantity (1,000 square feet)		
U.S. producers' direct imports from.-- China	***	***	***
All other sources	***	***	***
All import sources	***	***	***
	LDPV (\$1,000)		
U.S. producers' direct imports from.-- China	***	***	***
All other sources	***	***	***
All import sources	***	***	***
	Unit value (dollars per square foot)		
U.S. producers' direct imports from.-- China	***	***	***
All other sources	***	***	***
All import sources	***	***	***
	Ratio to overall U.S. imports within the source (percent)		
U.S. producers' direct imports from.-- China	***	***	***
All other sources	***	***	***
All import sources	***	***	***

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

NEGLIGENCE

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.⁹ Negligible imports are generally defined in the Act as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.¹⁰ Imports from China accounted for 29.5 percent of total imports of ceramic tile by quantity during April 2018 through March 2019 (table IV-4).

⁹ 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)).

¹⁰ Section 771 (24) of the Act (19 U.S.C § 1677(24)).

Table IV-4

Ceramic tile: U.S. imports in the 12-month period preceding the filing of the petition, April 2018 through March 2019

Item	April 2018 through March 2019	
	Official statistics	
	Quantity (1,000 square feet)	Share of quantity (percent)
U.S. imports from.-- China	640,156	29.5
Nonsubject sources	1,528,443	70.5
All import sources	2,168,599	100.0

Source: Compiled from official import statistics of the U.S. Department of Commerce under HTS heading 6907 accessed May 14, 2019.

APPARENT U.S. CONSUMPTION

Table IV-5 presents data on apparent U.S. consumption for ceramic tile. Apparent U.S. consumption, by quantity, increased by 7.5 percent between 2016 and 2018, increasing by 5.6 percent in 2017 and 1.7 percent in 2018. Apparent U.S. consumption, by value, increased by 7.1 percent between 2016 and 2018, increasing by 6.1 percent in 2017 and 1.1 percent in 2018.

Table IV-5
Ceramic tile: U.S. shipments of domestic product, U.S. imports, and apparent U.S. consumption, 2016-18

Item	Calendar year		
	2016	2017	2018
	Quantity (1,000 square feet)		
U.S. producers' U.S. shipments	872,121	921,263	875,750
U.S. imports from.--			
China	583,383	657,204	692,147
Brazil	99,309	111,215	159,576
Italy	385,551	378,766	360,060
Mexico	464,227	397,476	379,093
Spain	184,240	244,835	310,208
All other sources	270,648	309,294	295,849
Nonsubject sources	1,403,975	1,441,585	1,504,786
All import sources	1,987,359	2,098,789	2,196,933
Apparent U.S. consumption	2,859,480	3,020,052	3,072,683
	Value (1,000 dollars)		
U.S. producers' U.S. shipments	1,186,058	1,260,844	1,219,293
U.S. imports from.--			
China	517,431	588,915	626,340
Brazil	63,461	77,595	101,396
Italy	750,824	747,414	709,899
Mexico	265,226	219,953	230,421
Spain	244,356	307,299	359,297
All other sources	255,713	276,644	270,689
Nonsubject sources	1,579,579	1,628,906	1,671,702
All import sources	2,097,011	2,217,820	2,298,042
Apparent U.S. consumption	3,283,069	3,478,664	3,517,335

Source: Compiled from data submitted in response to Commission questionnaires and official import statistics of the U.S. Department of Commerce under HTS headings 6907 and 6908 accessed April 18, 2019.

U.S. MARKET SHARES

U.S. market share data are presented in table IV-6. U.S. producers' share of quantity of apparent U.S. consumption declined by 2.0 percentage points between 2016 and 2018, all of which occurred in 2018. The share of U.S. imports from China increased by 2.0 percentage points during 2016-18, increasing by 1.4 percentage points in 2017 and by 0.8 percentage points in 2018. The share of imports from nonsubject sources declined by 0.1 percentage points during 2016-18, declining by 1.4 percentage points in 2017 and increasing by 1.2 percentage points in 2018. The shares of value of apparent U.S. consumption during 2016-18 followed similar patterns.

Table IV-6
Ceramic tile: U.S. consumption and market shares, 2016-18

Item	Calendar year		
	2016	2017	2018
	Quantity (1,000 square feet)		
Apparent U.S. consumption	2,859,480	3,020,052	3,072,683
	Share of quantity (percent)		
U.S. producers' U.S. shipments	30.5	30.5	28.5
U.S. imports from.-- China	20.4	21.8	22.5
Brazil	3.5	3.7	5.2
Italy	13.5	12.5	11.7
Mexico	16.2	13.2	12.3
Spain	6.4	8.1	10.1
All other sources	9.5	10.2	9.6
Nonsubject sources	49.1	47.7	49.0
All import sources	69.5	69.5	71.5
	Value (1,000 dollars)		
Apparent U.S. consumption	3,283,069	3,478,664	3,517,335
	Share of value (percent)		
U.S. producers' U.S. shipments	36.1	36.2	34.7
U.S. imports from.-- China	15.8	16.9	17.8
Brazil	1.9	2.2	2.9
Italy	22.9	21.5	20.2
Mexico	8.1	6.3	6.6
Spain	7.4	8.8	10.2
All other sources	7.8	8.0	7.7
Nonsubject sources	48.1	46.8	47.5
All import sources	63.9	63.8	65.3

Source: Compiled from data submitted in response to Commission questionnaires and official import statistics of the U.S. Department of Commerce under HTS headings 6907 and 6908 accessed April 18, 2019.

PART V: PRICING DATA

FACTORS AFFECTING PRICES

Raw material costs

The initial raw material input used to produce ceramic tile is clay. While some amount of clay is common to all ceramic tile, the types and amounts and can vary widely.¹ Among the various types of clays, kaolin² and ball clay³ are the predominant types used in ceramic tile production. The production of tile also uses silicate mineral additives such as feldspar, nepheline, granite, pyrophyllite, wollastonite, and talc.⁴ Feldspar, in particular, is commonly added in the manufacture of porcelain tile.⁵ Raw material costs remained relatively steady during 2016-18, ranging between 29.3 percent (2016) and 30.4 percent (2017) of the total cost of goods sold (“COGS”).

In general, the producer price indexes (“PPI”) for kaolin clay, ball clay, and crushed granite (a quartz-rich igneous rock) all rose between January 2016 and March 2019 (figure V-1). The PPI for kaolin and ball clay rose between January and August 2016, then fluctuated until February 2018 at which point it remained relatively steady, before rising in January 2019.⁶ The PPI for crushed granite rose steadily between January 2016 and December 2018, then spiked in January 2019 before decreasing slightly through March 2019.⁷

¹ Petition, p. 10.

² “Kaolin, also called china clay, is a soft white clay that is an essential ingredient in the manufacture of china and porcelain and is widely used in the making of paper, rubber, paint, and many other products.” *Encyclopedia Britannica* website, <https://www.britannica.com/science/kaolin>, accessed May 4, 2019. “The commercial value of kaolin is based on the mineral’s whiteness and its fine, controllable particle size... {which} affects fluidity, strength, plasticity, color, abrasiveness and ease of dispersion.” *Kaolin and Ball Clay Association* website, <https://kabca.org/what-is-kaolin.php>, accessed May 4, 2019.

³ “Ball clays or plastic clays are fine grained, highly plastic sedimentary clays, which fire to a light or near white color. They are used mainly in the manufacture of ceramic whiteware and are valued for their key properties of plasticity, unfired strength and their light fired color. {They are} almost entirely used as ceramic raw materials for sanitaryware, wall and floor tile, and tableware. These sectors account for over 80% of total sales.” *Kaolin and Ball Clay Association* website, <https://kabca.org/what-is-ball-clay.php>, accessed May 4, 2019.

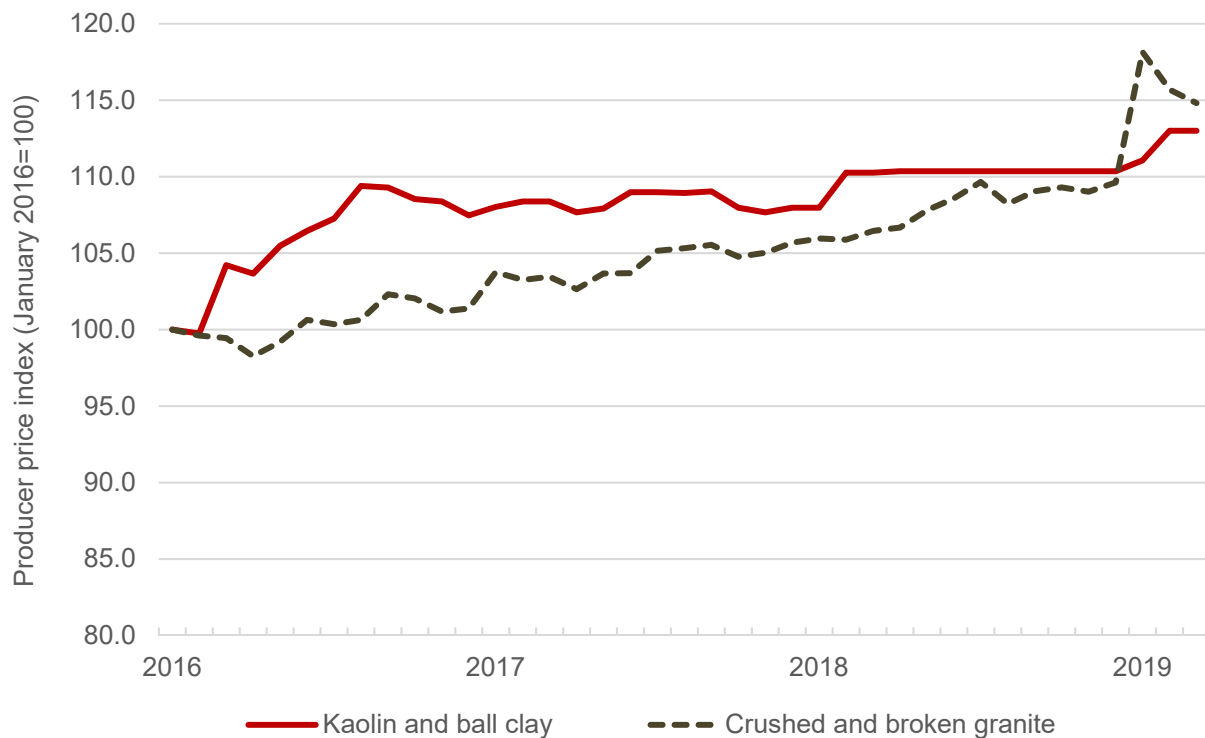
⁴ *Tile Council of North America* website, *Ceramic Tile Environmental Product Declaration, Industry-Wide Report*, <https://www.tcnatile.com/images/pdfs/EPD-for-Ceramic-Tile-Made-in-North-America.pdf>, retrieved May 4, 2019.

⁵ Petition, p. 10.

⁶ Between January 2016 and December 2018, the price of kaolin and ball clay increased by 10.4 percent. Between December 2018 and March 2019, the price increased by 2.4 percent.

⁷ Between January 2016 and December 2018, the price of crushed granite increased by 9.6 percent. Between December 2018 and March 2019, the price increased by 4.7 percent.

Figure V-1
Mined clay and granite prices: Producer price index for kaolin and ball clay, and for crushed and broken granite, not seasonally adjusted, monthly, January 2016-March 2019



Source: U.S. Bureau of Labor Statistics, "PPI Industry Data," retrieved April 16, 2019 and May 2, 2019.

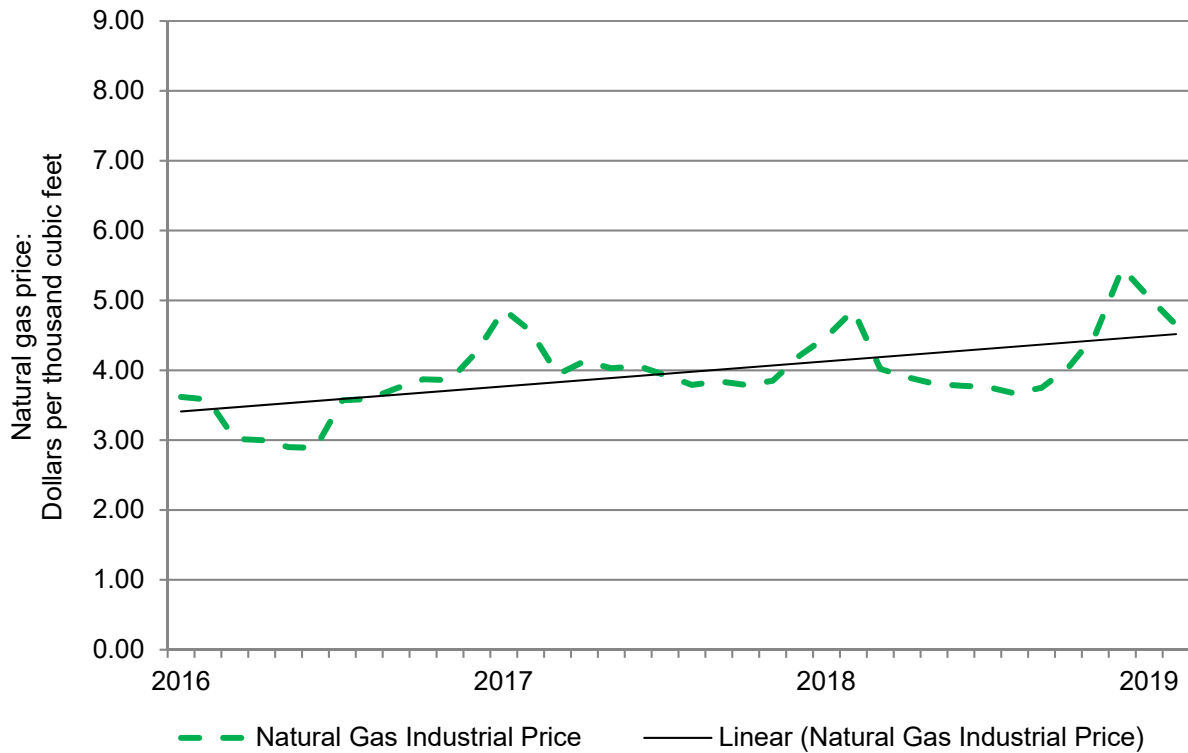
All nine responding U.S. producers and a plurality of responding importers (16 of 35 firms) reported an increase in raw material prices since January 1, 2016. Several U.S. producers reported being unable to pass along these cost increases to their customers, while one U.S. producer reported changing its tile composition in order to mitigate against the increase in raw material costs. Among importers, *** reported that it had not increased its selling price despite the increase in raw material costs, *** reported that competition from nonsubject imports have limited its ability to raise prices, and *** reported that the increase in raw material costs has increased the price differential between domestic and imported product.

Energy costs

Energy costs make up a substantial portion of the production cost of ceramic tile. The large majority of the kilns used to dry the formed tile is heated with natural gas.⁸ Industrial prices for natural gas increased steadily during January 2016-February 2019, with peaks during the winter months (December through February) of each year (figure V-2).

⁸ Conference transcript, pp. 119-120 (Donaldson, Baran, Astrachan).

Figure V-2
Natural gas prices: Average industrial natural gas price, dollars per thousand cubic feet, January 2016-February 2019



Source: U.S. Energy Information Administration, retrieved May 4, 2019.

Transportation costs to the U.S. market

Transportation costs for ceramic tile shipped from China to the United States averaged 20.9 percent during 2018. These estimates were derived from official import data and represent the transportation and other charges on imports.⁹

U.S. inland transportation costs

Most responding U.S. producers (7 of 9 firms) reported that the purchaser typically arranges transportation, while most importers (18 of 32 firms) reported that they typically arrange transportation to their customers. Most U.S. producers reported U.S. inland

⁹ The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2018 and then dividing by the customs value based on the same HTS subheadings used in Part IV. For Italy, such costs were 12.4 percent; for Spain, 16.9 percent; for Mexico, 7.7 percent; and for Brazil, 17.9 percent.

transportation costs ranging from 10 to 33 percent,¹⁰ while most U.S. importers reported transportation costs of 4 to 15 percent.

PRICING PRACTICES

Pricing methods

U.S. producers and importers reported using transaction-by-transaction negotiations, contracts, and price lists in order to set prices for ceramic tile. As presented in table V-1, U.S. producers and importers sell primarily through set price lists.

**Table V-1
Ceramic tile: U.S. producers’ and importers’ reported price setting methods, by number of responding firms¹**

Method	U.S. producers	Importers
Transaction-by-transaction	4	14
Contract	6	11
Set price list	8	27
Other	---	5
Responding firms	9	37

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

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

Both U.S. producers and importers reported selling most of their ceramic tile in the spot market, though importers sell a higher portion (***) compared to (***) of their product through this method than do U.S. producers (table V-2).

**Table V-2
Ceramic tile: U.S. producers’ and importers’ shares of U.S. commercial shipments by type of sale, 2018**

* * * * *

Most U.S. producers and importers reported that their short-term, annual, and long-term contracts fix price (and sometimes both price and quantity), and that the prices are not renegotiated during the contract periods. All responding U.S. producers and almost all responding importers reported that their contracts were not indexed to raw material costs.

¹⁰ Among the eight responding U.S. producers, four of them reported inland transport costs of 20 percent or more, while three reported costs of between 10 and 18 percent and one reported an inland transport cost of 4.3 percent. Petitioners testified that freights costs are “a huge factor” in the cost of the finished product. Conference transcript, pp. 98-102 (Donaldson, Curran, Mattioli).

Sales terms and discounts

U.S. producers (7 of 9) and importers (26 of 32) typically quote prices on an f.o.b. basis. As show in table V-3, most U.S. producers and importers offer some type of discount. Quantity and total volume discounts were the most frequently reported type offered by U.S. producers, while quantity discounts was the most frequently reported type offered by importers.

Table V-3

Ceramic tile: U.S. producers' and importers' discount policies, by type of discount

Type of discount	U.S. producers	Importers
Quantity	5	15
Total volume	5	10
No policy	2	11
Other	4	13

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

Additionally, several firms reporting offering other types of discounts. U.S. producers reported offering discounts based on expected sales volume, annual sales volume, vendor paid contract cost, size of initial purchase, discounts off the price list, and discounts that differ based on the specific customer. Importers reported offering discounts based on anticipated sales volume, vendor cost agreements, discounts off the price list(s), competitive retail matches, annual volume, rebate programs, the size of the customer, the type of customer, trade member discounts, discounts off discontinued product, and several others depending on the specific customer.

PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following ceramic tile products shipped to unrelated U.S. customers during January 2016-December 2018.

Product 1.--Porcelain tile, rectangular, 6"–8" in width by 24"–36" in length, sold to home center retailers

Product 2.--Porcelain tile, square or rectangular, 12"–24" in width by 12"–24" in length, sold to distributors

Product 3.--Ceramic tile, square or rectangular, 12"–24" in width by 12"–24" in length, sold to home center retailers

Product 4.--Ceramic tile, square or rectangular, 3"–6" in width by 6"–12" in length, sold to other retailers

Eight U.S. producers and 17 importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.^{11 12} Pricing data reported by these firms accounted for approximately 35.5 percent of U.S. producers' commercial shipments and 29.9 percent of U.S. commercial shipments of subject imports from China in 2018.

Price data for products 1-4 are presented in tables V-4 to V-7 and figures V-3 to V-6.

Table V-4

Ceramic tile: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, and margins of underselling/(overselling), by quarter, January 2016-December 2018

* * * * *

Table V-5

Ceramic tile: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, and margins of underselling/(overselling), by quarter, January 2016-December 2018

* * * * *

Table V-6

Ceramic tile: Weighted-average f.o.b. prices and quantities of domestic and imported product 3, and margins of underselling/(overselling), by quarter, January 2016-December 2018

* * * * *

Table V-7

Ceramic tile: Weighted-average f.o.b. prices and quantities of domestic and imported product 4, and margins of underselling/(overselling), by quarter, January 2016-December 2018

* * * * *

¹¹ Per-unit pricing data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision and variation of these figures may be affected by rounding, limited quantities, and producer or importer estimates.

¹² Importer ***. It indicated that *** it was unsuccessful in introducing a new product and so "****." Importer *** initially reported price data but no commercial shipments during 2016-18. Accordingly, these data have not been included in this pricing analysis.

Several importers, including ***, provided price data that yielded average unit values (AUVs) that were higher, and in some cases substantially higher, than U.S. producers' AUVs. In follow-up correspondence, several of these firms reported that much of their pricing data included decorative and mosaic-style wall tile, which is often made by hand and yield a substantially higher price than standard ceramic wall tile. Decorative mosaic wall tile and standard ceramic wall tile both fall under the pricing product descriptions. Petitioners and respondents also testified that domestic producers make mosaic-style wall tile. Conference transcript, pp. 67-68 (Astrachan), 71-73 (Baran, Astrachan, Curran), 189-191 (Bedrosian), 192 (Hansen). Accordingly, these data have been included in this pricing analysis.

Figure V-3
Ceramic tile: Weighted-average prices and quantities of domestic and imported product 1, by quarter, January 2016-December 2018

* * * * *

Figure V-4
Ceramic tile: Weighted-average prices and quantities of domestic and imported product 2, by quarter, January 2016-December 2018

* * * * *

Figure V-5
Ceramic tile: Weighted-average prices and quantities of domestic and imported product 3, by quarter, January 2016-December 2018

* * * * *

Figure V-6
Ceramic tile: Weighted-average prices and quantities of domestic and imported product 4, by quarter, January 2016-December 2018

* * * * *

Import purchase cost data

Nine importers provided usable purchase cost data for products 1-4 imported from China for their internal use, repackaging, or retail sales, although not all firms reported cost data for all products for all quarters.¹³ Import purchase cost data reported by these firms accounted for approximately 43 percent of these firms' imports for internal consumption and transfers to related firms in 2018. Import purchase cost data are presented in tables V-8 to V-11 and figures V-7 to V-10.

¹³ Importer *** initially reported purchase cost data but no internal consumption or transfers to related firms for internal use, repackaging, or retail sale during 2016-18. Accordingly, these purchase cost data have not been included in this cost analysis.

Table V-8

Ceramic tile: Weighted-average f.o.b. prices and quantities of domestic and landed duty paid costs of imported product 1, by quarter, January 2016-December 2018

* * * * *

Table V-9

Ceramic tile: Weighted-average f.o.b. prices and quantities of domestic and landed duty paid costs of imported product 2, by quarter, January 2016-December 2018

* * * * *

Table V-10

Ceramic tile: Weighted-average f.o.b. prices and quantities of domestic and landed duty paid costs of imported product 3, by quarter, January 2016-December 2018

* * * * *

Table V-11

Ceramic tile: Weighted-average f.o.b. prices and quantities of domestic and landed duty paid costs of imported product 4, by quarter, January 2016-December 2018

* * * * *

Figure V-7

Ceramic tile: Weighted-average prices and quantities of domestic and landed duty paid costs of imported product 1, by quarter, January 2016-December 2018

* * * * *

Figure V-8

Ceramic tile: Weighted-average prices and quantities of domestic and landed duty paid costs of imported product 2, by quarter, January 2016-December 2018

* * * * *

Figure V-9

Ceramic tile: Weighted-average prices and quantities of domestic and landed duty paid costs of imported product 3, by quarter, January 2016-December 2018

* * * * *

Figure V-10

Ceramic tile: Weighted-average prices and quantities of domestic and landed duty paid costs of imported product 4, by quarter, January 2016-December 2018

* * * * *

In addition to the import purchase cost data, firms were asked to estimate a variety of costs associated with their imports for internal use, including inland transportation costs, logistical or supply chain management costs, warehousing/inventory carrying costs, and insurance costs. Firms reported the following estimates (as a share of landed duty-paid value) for the following factors: inland transportation costs, less than 1 percent to 20 percent (for an average of 7.8 percent); logistical or supply chain management costs, 0.5 to 5 percent (for an average of 2.7 percent); warehousing/inventory carrying costs, 2 to 10 percent (for an average of 5.8 percent); and insurance costs, 1 percent.

When asked to which source(s) they compare costs in determining their additional transaction costs of directly importing ceramic tile, 1 importer reported that it compares import purchase costs to other importers' prices, none reported comparing these costs to U.S. producers' prices, 3 reported that they compare these costs to both U.S. producers' and other importers' prices, and 8 firms don't compare to either. When firms were asked whether they also purchase ceramic tile from a U.S. producer, 6 of 22 reported that they do and the other 16 reported that they do not. In general, firms stated that the benefits of importing ceramic tile for their internal use, repackaging, or retail sales included the following: U.S. transport and storage cost savings; access to specific designs and product types not available in the United States; ability to manage innovations and product features; exclusivity; supply chain risks; delivery time; order quantity; product variety and style; and overall cost savings. Firms estimated that the margin saved by directly importing ceramic tile ranged from 10 to 40 percent (for an average of 22 percent).

Price trends

Table V-12 summarizes the price trends, by country and by product. Domestic prices for products 1, 2, and 4 decreased *** during January 2016-December 2018, while the price of domestic product 3 increased. As shown in the table, domestic price decreases ranged from *** to *** percent, while the price increase of product 3 was *** percent. Import prices decreased for products 1 and 4, by *** and *** percent, respectively, while import prices increased for products 2 and 3, by *** and *** percent, respectively. Import purchase costs for subject imports decreased for products 2 and 4, by *** and *** percent, respectively, while import purchase costs increased for products 1 and 3 by *** and *** percent, respectively.

Table V-12
Ceramic tile: Summary of weighted-average f.o.b. prices for products 1-4 from the United States and China

Item	Number of quarters	Low price (\$ per square foot)	High price (\$ per square foot)	Change in price ¹ (percent)
Product 1				
United States	12	***	***	***
China	12	***	***	***
China (cost)	12	***	***	***
Product 2				
United States	12	***	***	***
China	12	***	***	***
China (cost)	12	***	***	***
Product 3				
United States	12	***	***	***
China	12	***	***	***
China (cost)	12	***	***	***
Product 4				
United States	12	***	***	***
China	12	***	***	***
China (cost)	12	***	***	***

¹ Percentage change from the first quarter in which data were available to the last quarter in which price data were available.

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

Price comparisons

As shown in table V-13, prices for ceramic tile imported from China were below those for U.S.-produced product in 20 of 48 instances (involving 153.6 million square feet); margins of underselling ranged from 3.3 to 19.8 percent. In the remaining 28 instances (involving 61.3 million square feet), prices for ceramic tile from China were between 1.0 and 52.5 percent above prices for the domestic product.

Table V-13
Ceramic tile: Instances of underselling/overselling and the range and average of margins, by country, January 2016-December 2018

Source	Underselling				
	Number of quarters	Quantity ¹ (square feet)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1 ²	---	---	---	---	---
Product 2	11	***	***	***	***
Product 3	9	***	***	***	***
Product 4 ²	---	---	---	---	---
Total, underselling	20	153,579,643	11.3	3.3	19.8
Source	(Overselling)				
	Number of quarters	Quantity ¹ (square feet)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	12	***	***	***	***
Product 2	1	***	***	***	***
Product 3	3	***	***	***	***
Product 4	12	***	***	***	***
Total, overselling	28	61,328,346	(23.9)	(1.0)	(52.5)

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

² Responding importers reported no quarterly instances of underselling for products 1 or 4 during 2016-18.

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

LOST SALES AND LOST REVENUE

The Commission requested that U.S. producers of ceramic tile report purchasers to which they experienced instances of lost sales or revenue due to competition from subject imports during January 2016-December 2018. Of the responding U.S. producers, 7 of 9 reported that they had to reduce prices and 1 of 8 reported that it had to roll back announced price increases. Eight of 9 U.S. producers reported that they had lost sales. Five U.S. producers submitted lost sales and lost revenue allegations, and identified 25 firms with which they lost sales or revenue (20 consisting lost sales allegations, 4 consisting of lost revenue allegations, and 2 consisting of both types of allegations).

Staff contacted 25 purchasers and received responses from eight purchasers. Responding purchasers reported purchasing and/or importing 3.7 billion square feet of ceramic tile during January 2016-December 2018 (table V-14).¹⁴

¹⁴ *** reported substantially increasing purchases between 2016 and 2017, but characterized it as a “decrease.” In follow up correspondence, *** clarified that *** its 2016 domestic purchase information does not reflect its actual purchases due to “***.” *** 2016 purchases therefore appear to be understated, and the change in domestic and subject country share may not be accurate.

Table V-14
Ceramic tile: Purchasers' responses to purchasing patterns

* * * * *

During 2018, responding purchasers purchased 21.8 percent of their ceramic tile from U.S. producers, purchased and/or imported 23.4 percent from China, purchased and/or imported 44.0 percent from nonsubject countries, and purchased 10.8 percent from “unknown source” countries. As described in Part II, of the responding purchasers, three reported decreasing purchases from domestic producers, one reported increasing domestic purchases, three reported no change, and one reported fluctuating domestic purchases.¹⁵ Explanations for decreasing purchases of domestic product included “diversification away from one large supplier” (***) , changes to styles and trends (***) , and a decrease in demand for floor tile (***) . (***) , the firm reporting an increase in domestic purchases, also reported increases in its purchases from subject and nonsubject sources, citing a rise in competition in floor tile from the European Union and Brazil.

Of the eight responding purchasers, four reported that, they had purchased subject imports instead of U.S.-produced product since January 1, 2016 (table V-15). All four of these purchasers reported that subject import prices were lower than U.S.-produced product, and 3 of the 4 reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. Three purchasers estimated the quantity of subject imports purchased instead of domestic product; quantities ranged from *** square feet to *** square feet, for a total of 19.7 million square feet (table V-15). Only one purchaser, *** , identified non-price reasons for purchasing imported rather than U.S.-produced product. It stated that product specification and quality were factors in addition to price, and that Chinese producers make a brighter white “subway tile” and have better packaging.

Table V-15
Ceramic tile: Purchasers' responses to purchasing subject imports instead of domestic product

* * * * *

Of the eight responding purchasers, none reported that U.S. producers had reduced prices in order to compete with lower-priced imports from China (table V-16). Five reported that U.S. producers had not reduced prices in order to compete with lower-priced subject imports, and three reported that they did not know. Since no firm reported that U.S. producers had reduced price, no firm estimated price reductions.

¹⁵ Of the eight responding purchasers, one (***) indicated that it did not know the source of any of the ceramic tile it purchased. Two firms (***) also reported purchasing at least some product from unknown source countries.

Table V-16
Ceramic tile: Purchasers' responses to U.S. producer price reductions

* * * * *

In responding to the lost sales lost revenue survey, some purchasers provided additional information on purchases and market dynamics. *** reported that it sought alternative products due to credit issues. "If the supplier is unable to provide adequate payment terms to accommodate {the 30-90 day} payment window," it stated, "we sometimes need to or are requested to seek out alternative products." *** stated that "while competition from China has likely impacted certain products, the competition from South America and Mexico had a more direct impact on U.S. producers' pricing."

PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

BACKGROUND

Nine U.S. producers (American Wonder, Crossville, Dal-Tile, Del Conca, Florida Tile, Florim, Interceramic, Landmark, and Stonepeak) provided financial data on their ceramic tile operations.^{1 2 3} These data are believed to account for the vast majority of U.S. production of ceramic tile in 2018. Dal-Tile is the largest ceramic tile producer and distributor in the United States with 10 manufacturing plants and accounts for *** of U.S. ceramic tile production and sales.⁴ Several smaller companies have long histories of ceramic tile production in the United States and continue to operate. Since 2016, two new startup companies *** joined the U.S. ceramic tile industry. Ceramic tile include thousands of product types that often change in response to color and fashion trends, resulting in large variations in product mix from company to company.^{5 6}

Net sales consisted primarily of commercial sales; however, three firms reported internal consumption and transfers to related firms.⁷ These non-commercial sales combined accounted for *** percent of total net sales value from 2016 to 2018. Non-commercial sales are included but not presented separately in this section of the report.

¹ Eight U.S. producers reported financial results on the basis of generally accepted accounting principles (GAAP) while one U.S. producer *** used International Financial Reporting Standards (IFRS). All nine responding U.S. producers reported fiscal years ending on December 31.

² Two producers, (***), reported purchasing inputs from related suppliers in 2018 with these purchases accounting for less than three percent of each producer's COGS in 2018. ***. ***. U.S. producer questionnaires, III-6, III-7, and III-8.

³ Eight out of nine U.S. producers reported that production and sales of ceramic tile generated all or more than 99 percent of their revenues in the same facilities that manufacture ceramic tile in 2018. ***. ***'s U.S. producer questionnaire, III-5 and *** email to USITC staff, May 1, 2019.

⁴ Dal-Tile is owned by Mohawk Industries, self-described world leader in ceramic tile, stone and quartz tile/countertops, and flooring. Mohawk's 2018 annual report, pp. 6-10 and Conference transcript, p. 35 (Mattioli).

⁵ Ceramic tile is a "highly differentiated product" with thousands of SKUs and product lines. Product lines typically last three to four years before the introduction of new designs and colors. Both porcelain and non-porcelain ceramic tile has ***. Conference transcript, p. 83 (Mattioli), pp. 86-87 (Mattioli, Baran), p. 112 (Astrachan), p. 113 (Curran), 119 (Malashevich), and *** May 3, 2019.

⁶ Value data may be a more accurate measure than quantity and per-square foot data because the industry does not have a standard measure of quantity across all products. ***. Petitioner testified that figuring out the best metric of volume was "the single thing that consumed most of our time" while preparing for the petition and concluded that the best measure they could find was square feet.***, May 3, 2019 and conference transcript, p. 119 (Malashevich).

⁷ *** reported internal consumption that was less than *** of their total net sales. *** reported transfers to related firms.

OPERATIONS ON CERAMIC TILE

Table VI-1 presents aggregated financial data on U.S. producers' operations of ceramic tile, while table VI-2 presents the corresponding changes in average unit values. Appendix F-1 presents selected company-specific financial data. Figure VI-1 shows the combined net sales value from 2016 to 2018 for all nine responding U.S. producers. ***'s net sales value represented the highest share at *** percent, with the second and third largest producers *** and *** representing *** percent and *** percent, respectively. The remaining six producers combined represent *** percent of the net sales value. From 2016 to 2018, ***.

Figure VI-1

Ceramic tile: U.S. producers' share of total net sales value from 2016 to 2018

* * * * *

Table VI-1

Ceramic tile: Results of operations of U.S. producers, 2016-18

Item	Calendar year		
	2016	2017	2018
	Quantity (1,000 square feet)		
*** net sales	***	***	***
*** net sales	***	***	***
Total net sales	880,832	930,202	884,830
	Value (1,000 dollars)		
*** net sales	***	***	***
*** net sales	***	***	***
Total net sales	1,200,231	1,276,316	1,235,205
Cost of goods sold.--			
Raw materials	200,743	214,467	199,459
Direct labor	96,032	106,006	101,657
Other factory costs	389,326	383,898	373,786
Total COGS	686,101	704,371	674,902
Gross profit	514,130	571,945	560,303
SG&A expense	272,640	297,908	312,467
Operating income or (loss)	241,490	274,037	247,836
Interest expense	20,830	25,437	30,365
All other expenses	1,487	5,584	3,198
All other income	4,607	4,973	3,821
Net income or (loss)	223,780	247,989	218,094
Depreciation/amortization	83,218	99,248	112,975
Cash flow	306,998	347,237	331,069
	Ratio to net sales (percent)		
Cost of goods sold.--			
Raw materials	16.7	16.8	16.1
Direct labor	8.0	8.3	8.2
Other factory costs	32.4	30.1	30.3
Average COGS	57.2	55.2	54.6
Gross profit	42.8	44.8	45.4
SG&A expense	22.7	23.3	25.3
Operating income or (loss)	20.1	21.5	20.1
Net income or (loss)	18.6	19.4	17.7

Table continued on next page.

Table VI-1--Continued

Ceramic tile: Results of operations of U.S. producers, 2016-18

Item	Calendar year		
	2016	2017	2018
	Ratio to total COGS (percent)		
Cost of goods sold.--			
Raw materials	29.3	30.4	29.6
Direct labor	14.0	15.0	15.1
Other factory costs	56.7	54.5	55.4
Average COGS	100.0	100.0	100.0
	Unit value (dollars per square foot)		
Total net sales	1.36	1.37	1.40
Cost of goods sold.--			
Raw materials	0.23	0.23	0.23
Direct labor	0.11	0.11	0.11
Other factory costs	0.44	0.41	0.42
Average COGS	0.78	0.76	0.76
Gross profit	0.58	0.61	0.63
SG&A expense	0.31	0.32	0.35
Operating income or (loss)	0.27	0.29	0.28
Net income or (loss)	0.25	0.27	0.25
	Number of firms reporting		
Operating losses	1	2	2
Net losses	1	3	2
Data	8	9	9

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

Table VI-2

Ceramic tile: Changes in AUVs, between calendar years

* * * * * * *

Net sales

As presented in tables VI-1 and appendix F, net sales quantity and value both fluctuated, increasing from 2016 to 2017 but declining in 2018; ***.⁸ Net sales quantity increased for eight out of nine producers from 2016 to 2017, but declined for seven out of nine producers from 2017 to 2018. *** and *** reported the largest net sales quantity declines in absolute terms from 2016 to 2018, but these declines were offset by new U.S. producers' gains in net sales quantity.⁹ Net sales revenue increased for four producers, with the three *** producers *** experiencing the largest increase when measured in percent change from 2016 to 2018. In absolute values, *** reported the largest revenue increase *** while ***.¹⁰ Aggregated net sales quantity increased by 0.5 percent while revenues increased by 2.9 percent from 2016 to 2018.

On a per-square foot basis, revenue increased each year, from \$1.36 in 2016 to \$1.37 in 2017, and then to \$1.40 in 2018. As shown in appendix F, ***.¹¹ During 2016 to 2018, per-square foot values ranged from a low of \$*** in 2017 reported by *** to a high of \$*** in 2018 reported by ***. Variations in per-square foot ceramic tile sales value may be explained by factors such as producer size, *** and product mix.^{12 13}

⁸ ***'s net sales quantity increased by *** percent from 2016 to 2017 before declining by *** percent from 2017 to 2018.

⁹ *** started operations in mid-2016; *** began production of ceramic tile in 2014 and doubled its capacity in January 2017 after a fire in 2016. As shown in appendix F, only these *** producers reported gains in net sales quantity from 2016 to 2018. U.S. producers' questionnaires, II-2, III-9a, and conference transcript, pp. 44 and 48 (Molina).

¹⁰ *** reported lost sales to its biggest customer, ***, throughout the period examined. ***. Florim testified that it cannot compete with tile imported from China that are priced at or lower than its cost of production. ***'s Lost Sales/Lost Revenue questionnaire, conference transcript, p. 43 (Haynes), and staff telephone interview with ***.

¹¹ Without the data from Dal-Tile, the other eight U.S. producers' aggregated per-square foot values were higher than the industry average ***.

¹² *** was the only U.S. producer that reported per-square foot unit values below \$1 ***. ***. In addition, ***, ***, email to USITC staff, April 26, 2019.

¹³ *** accounted for *** of total net sales quantity, *** percent of total net sales value from 2016 to 2018, and was the only U.S. producer reporting per-square foot values above \$2 ***. *** explained that it has high net sales per-square foot for several reasons. First, it ***. Second, it ***. Third, 100 percent of ***'s ceramic tile is porcelain tile as defined by ANSI and includes ***. ***, email to USITC staff, April 26, 2019.

Cost of goods sold (“COGS”) and gross profit or (loss)

From 2016 to 2018, aggregated COGS increased from 2016 to 2017 before declining in 2018. As shown in appendix F, ***.¹⁴ On a per-square foot basis, other factory costs was the only COGS item that changed from 2016 to 2018, causing COGS to decline from \$0.78 in 2016 to \$0.76 in 2017 and 2018. ***.¹⁵

As shown in table VI-1, other factory costs represent the largest component of total COGS, ranging from 54.5 percent to 56.7 percent of total COGS and decreasing in absolute values from 2016 to 2018. On a per-square foot basis, aggregated other factory costs decreased from \$0.44 in 2016 to \$0.41 in 2017 before increasing to \$0.42 in 2018. ***.¹⁶ On a per-square foot basis, ***. Petitioning firms reported that porcelain ceramic tile’s lower water absorption and strength requires more time and higher temperatures (increased energy costs) to produce, resulting in higher other factory costs than non-porcelain ceramic tile.¹⁷ Product mix (primarily porcelain or non-porcelain ceramic tile) may explain the variation in other factory costs among producers.¹⁸

Raw material costs were mostly stable from 2016 to 2018, decreasing by 0.6 percent in absolute value and stayed \$0.23 per-square foot. Table VI-3 presents details on raw material inputs as a share of total raw material costs in 2018. Minerals such as silica and feldspar were the leading cost of raw materials in all three measures (absolute value, unit value, and share of value), with clay and surfacing materials close behind. Other raw materials accounted for the smallest share of total raw materials at 19.4 percent of value and included packaging, nephteline, and chemical stains.¹⁹ As shown in appendix F, average raw material costs varied dramatically from company to company, reflecting underlying differences in product mix.²⁰

¹⁴ Without Dal-Tile’s data, the other eight U.S. producers’ aggregated COGS increased by ***.

¹⁵ Without the data from Dal-Tile, the other eight U.S. producers’ aggregated per-square foot COGS were ***.

¹⁶ *** explained that there is no primary cost driver for other factory costs and these costs include natural gas, electricity, repair and maintenance, shop supplies, property taxes, and indirect labor. ***, email to USITC staff, May 3, 2019.

¹⁷ Eight out of nine (***) U.S. producers confirmed that the natural gas used to heat the kilns were reported in other factory costs. Petitioner’s postconference brief, att. A, p. 26 and *** email to USITC staff, May 1, 2019.

¹⁸ The reported other factory costs for individual producers may not accurately measure the variations in cost for product mix, especially for ***. In addition, the units of sale of each product SKU may further complicate per-square foot analysis. For example, *** per-square foot to \$*** per-square foot from 2016 to 2018. Petitioner’s postconference brief, att. A, pp. 20-21, 23 and U.S. producer questionnaires, III-9a.

¹⁹ *** reported unusually higher than average other raw material costs, explaining that it uses ***. It also produces ***. Another factor is that ***’s porcelain ceramic tile is ***. ***, email to USITC staff, April 26, 2019.

²⁰ Petitioner reported that the costs of producing porcelain ceramic tile is “as much as ***” the costs of producing non-porcelain ceramic tile, with raw materials for porcelain body averaging \$*** per square foot while non-porcelain body averages \$***. Petitioner’s postconference brief, att. A, p. 20.

Table VI-3
Ceramic tile: U.S. producers' raw material inputs, 2018

Item	Calendar year 2018			Acquisition method	
	Value (1,000 dollars)	Unit value (dollars per square foot)	Share of value (percent)	Make	Purchase
Clay	52,220	0.06	26.2	1	8
Silica, feldspar, and other mineral	60,210	0.07	30.2	---	9
Glazing, decorating, and other surfacing materials	48,286	0.05	24.2	---	9
Other raw materials	38,743	0.04	19.4	---	4
Raw materials	199,459	0.23	100.0		

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

Direct labor costs were mostly stable from 2016 to 2018, increasing by 5.9 percent in absolute value and stayed \$0.11 per-square foot. Direct labor costs as a share of total COGS for the industry and for *** ranged from 14.0 percent to 15.1 percent from 2016 to 2018. As shown in appendix F, direct labor costs also varied from company to company, with the lowest direct labor cost of \$*** per-square foot reported by *** and the highest \$*** per-square foot reported by ***.²¹

As a ratio to net sales, COGS declined from 57.2 percent in 2016, to 55.2 percent in 2017, then declined further to 54.6 percent in 2018. ***. Table VI-1 shows that U.S. producers' aggregate gross profit increased overall (\$514.1 million in 2016, \$571.9 million in 2017, \$560.3 million in 2018), with an increase of 9.0 percent from 2016 to 2018. As shown in table VI-1 and appendix F, *** declines in gross profit reported by five producers from 2016 to 2018.^{22 23}

Selling, general, and administrative expenses and operating income or (loss)

As shown in tables VI-1 and appendix F, the U.S. industry's selling, general, and administrative ("SG&A") expense ratios (i.e., total SG&A expenses divided by net sales) increased each year, from a low of 22.7 percent in 2016 to 25.3 percent from 2018.^{24 25} Selling expenses were approximately 80 percent of total SG&A costs while general and administrative expenses stayed virtually constant. As shown in appendix F, ***.²⁶ Other companies' SG&A expenses fluctuated dramatically from 2016 to 2018, with a high of *** to a low of ***.

²¹ ***, U.S. producers' direct labor costs per-square foot fluctuated less than *** percent from 2016 to 2018.

²² *** reported declines in gross profits from 2016 to 2018.

²³ Without the data from Dal-Tile, U.S. producers' aggregated gross profit values ***.

²⁴ One small U.S. producer ***. *** accounted for less than two percent of total net sales of ceramic tile from 2016 to 2018. ***'s U.S. producer questionnaire and *** email to USITC staff, May 1, 2019.

²⁵ One firm, ***, reported nonrecurring charges in ***. ***'s U.S. producer questionnaire, III-10.

²⁶ ***, ***, email to USITC staff, May 3, 2019.

From 2016 to 2018, operating income increased by 2.6 percent, increasing from \$241.5 million in 2016 to \$274.0 million in 2016 before decreasing to \$247.8 million in 2018. As shown in appendix F, *** and accounted for the *** of the U.S. industry's operating income.²⁷ Six out of nine producers reported declining operating income, with *** reporting the largest decline. Aggregated for the industry, operating margins (i.e. operating income divided by net sales) remained the same at *** percent from 2016 to 2018, after an increase to *** percent in 2017.²⁸

Other expenses and income

Overall, all other expenses and interest expenses increased while other income decreased from 2016 to 2018. As a share of revenue, interest expenses and all other expenses and income accounted for 2.4 percent or less of total reported revenue during this period.

Net income or (loss)

Similar to gross and operating income, net income increased from \$223.8 million in 2016 to \$248.0 million in 2017, before decreasing to \$218.1 million in 2018. Like gross and operating income, ***.²⁹ ***. Combined, net profit margins for U.S. producers of ceramic tile were 18.6 percent in 2016, increased to 19.4 percent in 2017, then decreased to 17.7 percent in 2018. As with other profitability indicators, ***'s net profit margins were *** the industry average and *** reported by six producers.^{30 31}

VARIANCE ANALYSIS

A variance analysis is not presented in this report due to large differences in product mix and data fluctuations from startup producers.

²⁷ Without the data from Dal-Tile, the other eight U.S. producers' aggregated operating income *** percent from 2016 to 2018 ***.

²⁸ Without the data from Dal-Tile, the other eight U.S. producers' aggregated operating margins ***.

²⁹ Without the data from Dal-Tile, the other eight U.S. producers' aggregated net income *** percent from 2016 to 2018 ***.

³⁰ ***. *** reported declines in net profit margins from 2016 to 2018.

³¹ Without the data from Dal-Tile, the other eight U.S. producers' aggregated net profit margins ***.

CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Table VI-4 presents capital expenditures and research and development (“R&D”) expenses. Aggregated capital expenditures decreased by 48.4 percent from 2016 to 2018.³² *** accounted for most of the capital expenditures in 2016 and 2018.³³ Most companies incurred capital expenditures for new machinery and equipment modernization. R&D expenses increased from 2016 to 2018, mostly for developing new products and improving digital printing. Four producers *** reported very little or zero R&D expenses, explaining that their parent companies incur the R&D costs related to ceramic tile production.³⁴

No patent or copyright protection exists within the ceramic tile industry, but does exist within the equipment used to manufacture ceramic tile.³⁵ R&D for ceramic tile equipment is beyond the scope of these investigations.

³² Witness testimony indicated reduced or stalled capital investment for plant expansions during the period examined. Conference transcript, p. 43 (Haynes) and p. 82 (Mattioli).

³³ *** Landmark started production in 2016. Del Conca is also a relatively new producer, with its ceramic tile factory starting operations in 2014. Witnesses testified that it takes at least two years from site selection to plant construction and that the new ceramic tile companies made their decision based on the market view in 2012 and 2013. Conference transcript, p. 81 (Baran); *Contemporary Stone and Tile Design Magazine webpage*, <https://www.stoneworld.com/articles/89222-landmark-ceramics-hosts-grand-opening-for-new-production-facility>, retrieved May 20, 2019; and *Del Conca webpage*, <http://www.delconcausa.com/del-conca-usa/about-us/company-profile/>, retrieved April 24, 2019.

³⁴ U.S. producer questionnaires, III-13.

³⁵ Conference transcript, pp. 32 and 34 (Curran) and p. 84 (Astrachan).

Table VI-4
Ceramic tile: Capital expenditures and R&D expenses for U.S. producers, by firm, 2016-18

Item	Calendar year		
	2016	2017	2018
	Capital expenditures (1,000 dollars)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Total capital expenditures	313,633	194,157	161,715
	R&D expenses (1,000 dollars)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Total R&D expenses	***	***	***

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

ASSETS AND RETURN ON ASSETS

Table VI-5 presents data on the U.S. producers' total assets and their return on assets ("ROA").³⁶ Total assets utilized by U.S. producers fluctuated, increasing by 6.9 percent from 2016 to 2017 but decreased by 1.6 percent from 2017 to 2018; ROA also fluctuated. Negative ROA ratios were reported by ***, reflecting the same trend as their operating margins. ***,³⁷

Table VI-5
Ceramic tile: U.S. producers' total assets and ROA, 2016-18

Firm	Calendar year		
	2016	2017	2018
	Total net assets (1,000 dollars)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Total net assets	1,635,216	1,747,958	1,720,594
	ROA (percent)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average ROA	14.8	15.7	14.4

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

³⁶ The return on assets is calculated as operating income divided by total assets. With respect to a firm's overall operations, the total asset value reflects an aggregation of a number of assets which are generally not product specific. Thus, high-level allocations are generally required in order to report a total asset value for the subject product.

³⁷ As noted earlier in this section of the report, ***. *** email to USITC staff, May 1, 2019.

CAPITAL AND INVESTMENT

The Commission requested U.S. producers of ceramic tile to describe any actual or potential negative effects of imports of ceramic tile from China on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Tables VI-6 tabulates the responses of U.S. producers on their ceramic tile operations. Tables VI-7 presents the detailed narrative responses of U.S. producers regarding actual and anticipated negative effects of subject imports on their ceramic tile operations.

Table VI-6

Ceramic tile: Actual and anticipated negative effects of imports on investment and growth and development

Item	No	Yes
Negative effects on investment	2	7
Cancellation, postponement, or rejection of expansion projects		6
Denial or rejection of investment proposal		0
Reduction in the size of capital investments		3
Return on specific investments negatively impacted		5
Other		1
Negative effects on growth and development		6
Rejection of bank loans		0
Lowering of credit rating		0
Problem related to the issue of stocks or bonds		0
Ability to service debt		0
Other		3
Anticipated negative effects of imports	0	9

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

Table VI-7

Ceramic tile: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2016

* * * * *

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

Section 771(7)(F)(i) of the Act (19 U.S.C. § 1677(7)(F)(i)) provides that—
In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors¹--

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

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

- (VI) *the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,*
- (VII) *in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),*
- (VIII) *the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and*
- (IX) *any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).²*

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

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

THE INDUSTRY IN CHINA

China is the world's largest producer, consumer, and exporter of ceramic tile. Chinese production of ceramic tile is estimated to be 6.4 billion square meters (68.8 billion square feet), the equivalent to 47.2 percent of world production in 2017. Consumption of ceramic tile in China is estimated to be 5.5 billion square meters (59.2 billion square feet), or 41.4 percent of world consumption in 2017. There are an estimated 1,400 producers of ceramic tile in China, with 3,500 production lines.³ The city of Foshan, in Guangdong Province, is considered the center for China's ceramic tile industry, where some 350 producers account for a combined annual production of 1.2 billion square meters (12.9 billion square feet). Over the past decade, Foshan accounted for 54 percent of China's total output and 25 percent of global output. However, China's ceramic tile industry is not highly concentrated, with the top-ten producers having combined annual capacity accounting for only 4.1 percent of total industry production. New Pearl Group is the largest ceramic tile producer with combined annual production capacity of 200 million square meters (2.2 billion square feet), followed by New Zhongyuan Group with combined capacity of 100 million square meters (1.1 billion square feet), Nabel with combined capacity of 78 million square meters (840 million square feet), and Wonderful with combined capacity of 58 million square meters (624 million square feet).⁴

The Commission issued foreign producers' or exporters' questionnaires to 180 firms believed to produce and/or export ceramic tile from China.⁵ Usable responses to the Commission's questionnaire were received from six producers and seven resellers that exported to the United States. These firms' exports to the United States accounted for approximately 16.5 percent of U.S. imports of ceramic tile from China in 2018. Table VII-1 presents information on the ceramic tile operations of the responding producers and exporters in China and table VII-2 presents information on the responding resellers of ceramic tile in China.

³ Ceramic tile production in China increased from 64.3 billion square feet in 2015 to 69.9 billion square feet in 2016, while ceramic tile consumption in China increased from 52.6 billion square feet in 2015 to 58.9 billion square feet in 2016. *Ceramic World Review 128/2018*, Tile Edizioni, pp. 62-64, found at <http://www.tiledizioni.it/ita/riviste/20158/Ceramic-World-Review-n-128-2018.aspx>, accessed on April 22, 2018.

⁴ *Tile & Stone Journal*, "China's Maturing Manufacturers Now Produce Half of the World's Ceramic Tiles," September 2018, <http://www.tileandstonejournal.com/featured-articles/china-s-maturing-manufacturers-now-produce-half-of-the-world-s-ceramic-tiles/> (retrieved May 15, 2019).

⁵ These firms were identified through a review of information submitted in the petition and contained in *** records.

Table VII-1
Ceramic tile: Summary data for producers in China, 2018

Firm	Production (1,000 square feet)	Share of reported production (percent)	Exports to the United States (1,000 square feet)	Share of reported exports to the United States (percent)	Total shipments (1,000 square feet)	Share of firm's total shipments exported to the United States (percent)
Guangdong Kito	***	***	***	***	***	***
Kim Hin	***	***	***	***	***	***
Nabel	***	***	***	***	***	***
Seed	***	***	***	***	***	***
Shiwan Yulong	***	***	***	***	***	***
Sunvin	***	***	***	***	***	***
Total	304,275	100.0	25,288	100.0	284,386	8.9

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

Table VII-2
Ceramic tile: Resellers in China, 2018

Firm	Resales (1,000 square feet)	Share of reported resales (percent)
Gearex	***	***
Guangdong Kito	***	***
Hoe Hin	***	***
Miki	***	***
Nabel	***	***
Soaraway	***	***
Sunvin	***	***
Total	89,378	100.0

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

Changes in operations

As presented in table VII-3 producers in China reported several operational and organizational changes since January 1, 2016.

Table VII-3
Ceramic tile: Producers' in China reported changes in operations, since January 1, 2016

Item / Firm	Reported changed in operations
Relocations:	
***	***
Expansions:	
***	***
Prolonged shutdowns or curtailments:	
***	***

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

Operations on ceramic tile

Table VII-4 presents information on the ceramic tile operations of the responding producers and exporters in China. The capacity and production of the responding producers in China declined by 2.8 and 4.7 percent, respectively, between 2016 and 2018, and are projected to decrease by 5.3 and 6.8 percent, respectively, between 2018 and 2020.⁶ Capacity utilization of the responding producers in China declined from 98.7 percent in 2016 to 96.9 percent in 2018, and are projected to decline to 95.3 percent in 2020. Total shipments of the responding producers in China decreased by 10.0 percent between 2016 and 2018, driven largely by a reduction in exports, which decreased by 30.9 percent over the same period. Exports to the United States of the responding producers in China decreased by 24.3 percent between 2016 and 2018 and are projected to decrease by 50.8 percent by 2020. The combined exports to the United States of the responding producers and resellers in China increased 20.9 percent between 2016 and 2018, increasing 4.1 percent in 2017 and 16.0 percent in 2018.⁷

⁶ Firms reported that the projections were based on expected impact of this proceeding, anticipated global slow down, and primarily focused on the market in China.

⁷ The largest responding reseller that exports to the United States, ***, reported no projected exports to the United States in 2019 and 2020. The firm has not responded to staff inquiries regarding this data. If this firm's 2019 and 2020 exports to the United States were assumed to be the same as 2018, combined exports from China to the United States would be *** percent lower in 2020 than in 2018.

Table VII-4
Ceramic tile: Data for producers in China, 2016-18

Item	Actual experience			Projections	
	Calendar year			Calendar year	
	2016	2017	2018	2019	2020
	Quantity (1,000 square feet)				
Capacity	323,184	325,816	314,031	308,131	297,371
Production	319,136	302,778	304,275	295,246	283,500
End-of-period inventories	95,038	85,182	104,502	110,832	103,581
Shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Total home market shipments	239,260	252,496	231,360	246,970	254,719
Export shipments to:					
United States	33,393	26,648	25,288	17,034	12,448
All other markets	43,323	33,697	27,738	24,378	22,584
Total exports	76,716	60,345	53,026	41,412	35,032
Total shipments	315,976	312,841	284,386	288,382	289,751
	Ratios and shares (percent)				
Capacity utilization	98.7	92.9	96.9	95.8	95.3
Inventories/production	29.8	28.1	34.3	37.5	36.5
Inventories/total shipments	30.1	27.2	36.7	38.4	35.7
Share of shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Total home market shipments	75.7	80.7	81.4	85.6	87.9
Export shipments to:					
United States	10.6	8.5	8.9	5.9	4.3
All other markets	13.7	10.8	9.8	8.5	7.8
Total exports	24.3	19.3	18.6	14.4	12.1
Total shipments	100.0	100.0	100.0	100.0	100.0

Table continued on next page.

Table VII-4Continued
Ceramic tile: Data for producers in China, 2016-18

Item	Actual experience			Projections	
	Calendar year			Calendar year	
	2016	2017	2018	2019	2020
	Quantity (1,000 square feet)				
Resales exported to the United States	61,485	72,167	89,378	27,781	28,432
Total exports to the United States	94,878	98,815	114,666	44,815	40,880
	Ratios and shares (percent)				
Share of total exports to the United States:					
Exported by producers	35.2	27.0	22.1	38.0	30.5
Exported by resellers	64.8	73.0	77.9	62.0	69.5
Adjusted share of total shipments to the United States	30.0	31.6	40.3	15.5	14.1

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

Alternative products

None of the responding firms in China produced other products on the same equipment and machinery used to produce ceramic tile.

Exports

According to GTA, the leading export markets for ceramic tile from China other than the United States are Indonesia, the Philippines, and Vietnam (table IV-5). During 2016-18, the United States was the top export market for ceramic tile from China, accounting for 9.2 percent, followed by the Philippines, accounting for 7.2 percent.

**Table VII-5:
Ceramic tile: Exports from China, 2016-18**

Destination market	Calendar year		
	2016	2017	2018
	Value (1,000 dollars)		
Exports from China to the United States	373,266	370,776	409,391
Exports from China to India ¹	76,139	39,136	28,932
Mexico ¹	44,946	22,131	18,985
Exports from China to other major destination markets.--			
Philippines	336,084	297,136	318,376
Vietnam	256,349	280,204	296,291
Indonesia	229,865	244,289	287,908
Korea	262,604	257,655	256,048
Thailand	170,716	169,012	184,803
Australia	180,535	154,731	169,519
Malaysia	173,163	119,485	153,296
Cambodia	123,896	118,104	126,448
All other countries	3,303,269	2,353,437	2,202,186
Total exports from China	5,530,830	4,426,096	4,452,183
	Share of value (percent)		
Exports from China to the United States	6.7	8.4	9.2
Exports from China to India ¹	1.4	0.9	0.6
Mexico ¹	0.8	0.5	0.4
Exports from China to other major destination markets.--			
Philippines	6.1	6.7	7.2
Vietnam	4.6	6.3	6.7
Indonesia	4.2	5.5	6.5
Korea	4.7	5.8	5.8
Thailand	3.1	3.8	4.2
Australia	3.3	3.5	3.8
Malaysia	3.1	2.7	3.4
Cambodia	2.2	2.7	2.8
All other countries	59.7	53.2	49.5
Total exports from China	100.0	100.0	100.0

¹ See table VII-8.

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

Source: Official exports statistics under HS subheadings 6907.10, 6907.21, 6907.22, 6907.23, 6907.30, 6907.40, 6907.90, 6908.10, and 6908.90, as reported by China Customs in the Global Trade Atlas database, accessed April 18, 2019.

U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-6 presents data on U.S. importers' reported inventories of ceramic tile. Importers' inventories of ceramic tile from China and from nonsubject sources increased in 2017 and 2018, both in absolute terms and relative to imports, U.S. shipments of imports, and total shipments of imports. Inventories of imports from China grew by 30.4 percent between 2016 and 2018, increasing by 20.6 percent in 2017 and by 8.2 percent in 2018. Inventories of ceramic tile from China increased by 45.0 million square feet between 2016 and 2018, and increased as a ratio to total shipments from 40.8 to 46.9 percent during this period.⁸ Inventories of imports from nonsubject sources grew by 29.6 percent between 2016 and 2018, increasing by 18.8 percent in 2017 and by 9.1 percent in 2018. Inventories of ceramic tile from nonsubject sources increased by 53.2 million square feet between 2016 and 2018, and increased as a ratio to total shipments from 26.7 to 32.1 percent during this period.⁹

Table VII-6
Ceramic tile: U.S. importers' inventories, 2016-18

Item	Calendar year		
	2016	2017	2018
	Inventories (1,000 square feet); Ratios (percent)		
Imports from China Inventories	147,863	178,307	192,880
Ratio to U.S. imports	38.8	40.6	45.0
Ratio to U.S. shipments of imports	40.9	44.0	46.9
Ratio to total shipments of imports	40.8	44.0	46.9
Imports from nonsubject sources: Inventories	180,093	213,914	233,324
Ratio to U.S. imports	26.5	29.8	31.3
Ratio to U.S. shipments of imports	26.7	31.3	32.1
Ratio to total shipments of imports	26.7	31.3	32.1
Imports from all import sources: Inventories	327,956	392,221	426,204
Ratio to U.S. imports	30.9	33.9	36.3
Ratio to U.S. shipments of imports	31.6	36.0	37.5
Ratio to total shipments of imports	31.6	36.0	37.4

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

⁸ The largest increase, by quantity, of inventories of U.S. imports from China and from all other sources during 2016-18, was ***. ***. ***. The firm's share of inventories to imports from China ***

⁹ ***.

U.S. IMPORTERS' OUTSTANDING ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of ceramic tile from China after December 31, 2018 (table VII-7).

Table VII-7
Ceramic tile: Arranged imports, January 2019 through December 2019

Item	Period				Total
	Jan-Mar 2019	Apr-Jun 2019	Jul-Sept 2019	Oct-Dec 2019	
	Quantity (1,000 square feet)				
Arranged U.S. imports from.-- China	67,605	46,193	16,526	6,876	137,200
All other sources	123,276	81,206	27,537	11,427	243,446
All import sources	190,881	127,399	44,063	18,303	380,646

Note.--During January-March 2019 U.S. imports from China were 123.2 million square feet and from nonsubject sources were 441.1 million square feet.

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

TRADE REMEDY ACTIONS IN THIRD-COUNTRY MARKETS

The petitioner provided information about antidumping duty actions (table VII-8)¹⁰ and safeguard measures (table VII-9) on ceramic tile originating from China in third-country markets.

¹⁰ Petitioner also cited the questionnaire response of *** that *** have antidumping or safeguard findings, remedies, or proceedings on imports of ceramic tile originating from China. Petition, p. 6; Petitioner's postconference brief, pp. 35-37.

Table VII-8
Ceramic tile: Antidumping duty orders on ceramic tile originating from China in third-country markets

Third-country market	Subject product	Effective date	Actions
European Union ¹	Glazed or unglazed ceramic flags and paving, hearth, or wall tiles; glazed and unglazed ceramic mosaic cubes, whether or not on a backing	March 2011	Provisional AD duty orders imposed with rates of 26.2–73.0.
		September 2011	Definitive AD duty orders imposed with rates of 26.3–69.7.
		November 2017	Definitive AD duty orders imposed with rates of 29.3–69.7.
Gulf Cooperation Council (“GCC”) ²	Ceramic flags and paving, hearth, floor or wall tiles, whether or not on a backing; finishing ceramics	November 2018	AD investigation initiated.
South Korea ³	Ceramic tile	July 2018	The existing AD duty orders were extended for another three years with recommended rates of 9.06–29.41 percent.
India ⁴	Glazed tiles, other than vitrified	October 2009	Definitive AD duty orders imposed with rates of either “nil” or 137 rupees per square meter (12.7 rupees per square foot).
	Unglazed or glazed porcelain/vitrified tiles	March 2016	Definitive AD duty orders imposed with rates of either “nil” or \$0.28–\$1.87 per square meter (12.7 rupees per square foot).
Mexico ⁵	Unglazed or glazed ceramic flags and paving, hearth, or wall tiles	May 2016	Provisional AD duty orders imposed with rates of \$2.9–\$12.42 per square meter (\$0.27–\$1.15 per square foot).
		October 2016	Definitive AD duty orders imposed with rates of \$2.9–\$12.42 per square meter (\$0.27–\$1.15 per square foot).
Pakistan ⁶	Ceramic, porcelain/vitrified/granite wall and floor tiles	November 2006	Definitive AD duty orders imposed with rates of 14.85–23.65 percent.
		November 2011	Notice of impending expiry of AD duty orders not published but domestic industry can file a new application for review.

Notes continued on next page.

Table VII-8—Continued**Ceramic tile: Antidumping duty orders on ceramic tile originating from China in third-country markets**

¹ European Commission, Commission Implementing Regulation (EU) 2017/2179, November 22, 2017; Commission Implementing Regulation (EU) 917/2011, September 12, 2011; Commission Implementing Regulation (EU) 258/2011, March 16, 2011.

² Saudi Ceramic Company filed an antidumping complaint against tile imports by GCC members (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates) from China, India, and Spain. Argaam Investment Co., “Saudi Ceramic Says Anti-dumping Complaint Under Investigation,” November 5, 2018; GCC Bureau of Technical Secretariat for Anti Injurious Practices in International Trade, “Initiation of Anti-Dumping Investigation Against Imports of Ceramic Tiles and paving, Hearth, Floor, or Wall Tiles, Whether Or Not On a Backing, Finished Ceramics, Originating in China, India, and Spain,” *Official Gazette*, November 5, 2018.

³ Kim, E.J., “S. Korea Extends Anti-dumping Duties on Chinese Ceramic Tile,” Yonhap News Agency, July 19, 2018.

⁴ India Directorate General of Anti-dumping & Allied Duties, “Anti-Dumping Investigation Concerning Imports of Ceramic Tiles Originating In or Exported From China PR, Final Findings,” 14/16/2008-DGAD, October 9, 2009; “Final Finding, Anti-Dumping Investigation Concerning Imports of Glazed/Unglazed Porcelain/Vitrified Tiles in Polished or Unpolished Finish With Less than 3% Water Absorption, Originating In or Exported From China PR,” 14/14/2014-DGAD, April 8, 2017, <http://www.dgtr.gov.in/sites/default/files/NCV%20Press%20English%20-%208.4.17.pdf>.

⁵ Global Trade Alert, “Mexico: Definitive Antidumping Duty on Imports of Ceramic Tiles for Walls and Floors From China,” n.d. (retrieved August 25, 2018).

⁶ Further information is not readily available. Pakistan National Tariff Commission, “Report on Final Determination and Levy of Antidumping Duty on Import of Tiles Which Includes Ceramic, Porcelain/Vitrified/Granite Wall and Floor Tiles in Glazed/Unglazed, Polished/Unpolished Finish Originating In and/or Exported From the People’s Republic of China,” A.D.C. No. 11/2006/NTC/CT, March 24, 2007; “Final Determination and Levy of Antidumping Duty on Import of Tiles Which Includes Ceramic, Porcelain/Vitrified/Granite Wall and Floor Tiles in Glazed/Unglazed, Polished/Unpolished Finish Originating In and/or Exported From the People’s Republic of China,” A.D.C. No. 11/2006/NTC/CT, May 8, 2012 <https://ntc.gov.pk/wp-content/uploads/2016/05/150512Final-Report-on-Tiles-IHC-Non-Conf-.pdf>.

Source: References cited: Petition, p. 6; exhs. I-2 “AD orders imposed by other countries on Chinese tile imports;” Petitioner’s postconference brief, attachment U.3 “Trade remedy documentation;” India Directorate General of Anti-dumping & Allied Duties; Pakistan National Tariff Commission.

Table VII-9**Ceramic tile: Safeguard measures on ceramic tile originating from China in third-country markets**

Third-country market	Subject product	Effective date	Actions
Indonesia ¹	Ceramic flags and paving, hearth, or wall tiles	October 2018	October 12, 2018 – October 11, 2019 (23 percent) October 12, 2019 – October 11, 2020 (23 percent) October 12, 2020 – October 11, 2021 (23 percent)
Philippines ²	Ceramic floor and wall tiles	December 2018	Safeguard investigations initiated.

¹ World Trade Organization, Committee on Safeguards, “Notification Pursuant to Article 12.1(C) of the Agreement on Safeguards, Indonesia,” G/SG/N/10/IDN/20/Suppl.1, G/SG/N/11/IDN/17, October 8, 2018.

² Philippines Department of Trade and Industry, “Notice of the Initiation of a Preliminary Investigation on the Application for Safeguard Measures on the Importation of Ceramic Floor and Wall Tiles From Various Countries,” SG Case 02-2018, December 20, 2018.

Source: References cited: Petitioner’s postconference brief, attachments U.1 – U.2 “Trade remedy documentation.”

INFORMATION ON NONSUBJECT COUNTRIES

Brazil, Italy, Mexico, and Spain were the leading nonsubject sources for U.S. imports of ceramic tile in 2016-18 (see table IV-2), for which export data are presented below.

The industry in Brazil

Brazil was the world's third largest producer of all types of ceramic tile in 2017, accounting for *** square meters (***) square feet) or *** percent of global output in that year.¹¹ Leading ceramic tile producers based in Brazil (in descending order of output) include: Ceramica Carmelo Fior, Grupo Fragnani, Grupo Sedasa, Portobello Group, and Ceramica Elizabeth. These firms, operating only in Brazil, reported exporting only 2-17 percent of their output in 2017.¹² Brazil's exports of ceramic tile increased by 45.6 percent from 2016 to 2018 (table VII-10). The Dominican Republic (22.5 percent), the United States (15.4 percent), Paraguay (10.8 percent), and Argentina (9.8 percent) were the leading export destinations (in terms of value) in 2018, together accounting for nearly three-fifths (58.6 percent) of Brazil's ceramic tile exports.

¹¹ Petition, exh. I-15-C "Ceramic tile market information;" Respondents postconference brief, exh. 7 "Information on third-country markets, excerpts from exhibit I-15 of the Petition," ***, p. 23.

¹² "The World's Top Ceramic Tile Manufacturers," *Ceramic World Review*, August/October 2018, pp. 74-77.

Table VII-10
Ceramic tile: Exports from Brazil by destination market, 2016-18

Importer	Calendar year		
	2016	2017	2018
	Value (1,000 dollars)		
Exports from Brazil to.-- United States (including Puerto Rico)	48,776	59,428	75,880
All other major destination markets.-- Dominican Republic	19,682	19,521	101,345
Paraguay	35,842	47,686	48,651
Argentina	31,233	40,263	44,312
Chile	18,540	19,376	19,950
Colombia	13,730	16,895	16,516
Uruguay	12,445	15,015	15,228
Bolivia	14,219	13,391	13,020
Honduras	8,102	10,083	11,126
Panama	10,630	10,800	10,780
Peru	9,796	5,628	9,437
Haiti	5,219	7,453	8,383
All other exporters	80,703	78,961	75,252
Total exports from Brazil	308,917	344,500	449,878
	Share of value (percent)		
Exports from Brazil to.-- United States (including Puerto Rico)	15.8	17.3	16.9
All other major destination markets.-- Dominican Republic			
Paraguay	6.4	5.7	22.5
Argentina	11.6	13.8	10.8
Chile	10.1	11.7	9.8
Colombia	6.0	5.6	4.4
Uruguay	4.4	4.9	3.7
Bolivia	4.0	4.4	3.4
Honduras	4.6	3.9	2.9
Panama	2.6	2.9	2.5
Peru	3.4	3.1	2.4
Haiti	3.2	1.6	2.1
All other exporters	26.1	22.9	16.7
Total exports from Brazil	100.0	100.0	100.0

Note.— Import quantities not provided due to differences in units of measure amongst reporting countries.

Source: Official export statistics under HS subheadings 6907.10, 6907.90, 6908.10, and 6908.90 for calendar year 2016; and HS subheadings 6907.21, 6907.22, 6907.23, 6907.30, and 6907.40 for calendar years 2017 and 2018, reported by Brazil's Foreign Trade Secretariat ("SECEX"), in the IHS Markit, Global Trade Atlas database, accessed May 3, 2019.

The industry in Italy

Italy was the world's sixth largest producer of all types of ceramic tile in 2017, accounting for *** square meters (***) or *** percent of global output in that year.¹³ The top ceramic tile producers based in Italy (in descending order of revenues, of €200 million or more) included: Concorde Group, Finadre-Iris Ceramica Group, Fin-floor Group, and Panaria Group, all having multinational operations; followed by Casalgrande Padana and Coop Ceramica d'Imola, both having operations only in Italy. These firms reported exports accounting for 72-85 percent of their output in 2017.¹⁴ Italy's exports of ceramic tile increased by 6.7 percent from 2016 to 2018 (table VII-11). France (16.2 percent), the United States (13.3 percent), and Germany (12.8 percent) were the leading export destinations (in terms of value) in 2018, together accounting for over two-fifths (42.3 percent) of Italy's ceramic tile exports.

¹³ Petition, exh. I-15-C "Ceramic tile market information;" Respondents postconference brief, exh. 7 "Information on third-country markets, excerpts from exhibit I-15 of the Petition," ***, p. 23.

¹⁴ "The Largest Italian Groups and Companies," *Ceramic World Review*, August/October 2018, pp. 78-81.

Table VII-11**Ceramic tile: Exports from Italy by destination market, 2016-18**

Importer	Calendar year		
	2016	2017	2018
	Value (1,000 dollars)		
Exports from Italy to.--			
United States	650,201	651,977	621,610
All other major destination markets.--			
Germany	584,731	594,030	596,797
Belgium	165,261	166,503	169,888
Switzerland	153,520	156,723	166,152
United Kingdom	150,811	158,765	160,710
Austria	120,079	122,575	137,685
Canada	119,321	132,337	137,245
Netherlands	101,690	115,982	127,804
Spain	76,238	90,347	95,314
China	49,979	76,541	92,996
Poland	81,973	80,778	85,015
Russia	77,895	85,734	81,988
All other exporters	2,049,565	2,155,337	2,203,339
Total exports from Italy	4,381,265	4,587,630	4,676,543
	Share of value (percent)		
Exports from Italy to.--			
United States	14.8	14.2	13.3
All other major destination markets.--			
Germany	13.3	12.9	12.8
Belgium	3.8	3.6	3.6
Switzerland	3.5	3.4	3.6
United Kingdom	3.4	3.5	3.4
Austria	2.7	2.7	2.9
Canada	2.7	2.9	2.9
Netherlands	2.3	2.5	2.7
Spain	1.7	2.0	2.0
China	1.1	1.7	2.0
Poland	1.9	1.8	1.8
Russia	1.8	1.9	1.8
All other exporters	46.8	47.0	47.1
Total exports from Italy	100.0	100.0	100.0

Note.— Import quantities not provided due to differences in units of measure amongst reporting countries.

Source: Official export statistics under HS subheadings 6907.10, 6907.90, 6908.10, and 6908.90 for calendar year 2016; and HS subheadings 6907.21, 6907.22, 6907.23, 6907.30, and 6907.40 for calendar years 2017 and 2018, reported by Eurostat, in the IHS Markit, Global Trade Atlas database, accessed May 3, 2019.

The industry in Mexico

Mexico was the world's eleventh largest producer of all types of ceramic tile in 2017, accounting for *** square meters (*** square feet) or *** percent of global output in that year.¹⁵ Leading ceramic tile producers based in Mexico include: Grupo Lamosa (with multinational operations), VitroMex (having operations only in Mexico), and Interceramic (having operations in both Mexico and the United States). These firms reported exporting 28-41 percent of their output in 2017.¹⁶ Mexico's exports of ceramic tile declined by 17.8 percent from 2016 to 2018 (table VII-12). The United States was the predominant export destination (in terms of value) in 2018, accounting for over four-fifths (81.2 percent) of Mexico's ceramic tile exports. The petitioner cites several factors for declining exports to the United States, including overall domestic consumption growth for Mexican-origin ceramic tile, especially glazed porcelain tile;¹⁷ rising Mexican freight costs in recent years;¹⁸ and predominance of red-body tile production (due to the type of clay available in Mexico), a product for which demand has declined in the U.S. market.¹⁹

¹⁵ Petition, exh. I-15-C "Ceramic tile market information;" Respondents postconference brief, exh. 7 "Information on third-country markets, excerpts from exhibit I-15 of the Petition," ***, p. 23.

¹⁶ "The World's Top Ceramic Tile Manufacturers," *Ceramic World Review*, August/October 2018, pp. 74-77.

¹⁷ Petitioner's postconference brief, attachment A "Responses to Commission staff questions," p. 16; conference transcript, p. 65 (Baran).

¹⁸ Conference transcript, p. 66 (Baran).

¹⁹ Petitioner's postconference brief, attachment A "Responses to Commission staff questions," pp. 16-17.

Table VII-12

Ceramic tile: Exports from Mexico by destination market, 2016-18

Importer	Calendar year		
	2016	2017	2018
	Value (1,000 dollars)		
Exports from Mexico to.-- United States	263,807	216,137	213,317
All other major destination markets.-- Panama	9,898	9,729	11,738
Guatemala	8,772	8,314	7,262
Chile	9,821	7,727	6,262
Nicaragua	8,600	8,687	5,963
Costa Rica	7,699	5,873	5,803
El Salvador	4,368	4,819	4,026
Colombia	1,150	1,559	2,320
Belize	1,423	1,819	1,810
Peru	751	1,243	1,783
Canada	1,135	1,049	844
Argentina	---	1,871	636
All other exporters	2,398	5,916	1,075
Total exports from Mexico	319,823	274,743	262,838
	Share of value (percent)		
Exports from Mexico to.-- United States	82.5	78.7	81.2
All other major destination markets.-- Panama	3.1	3.5	4.5
Guatemala	2.7	3.0	2.8
Chile	3.1	2.8	2.4
Nicaragua	2.7	3.2	2.3
Costa Rica	2.4	2.1	2.2
El Salvador	1.4	1.8	1.5
Colombia	0.4	0.6	0.9
Belize	0.4	0.7	0.7
Peru	0.2	0.5	0.7
Canada	0.4	0.4	0.3
Argentina			
All other exporters	0.7	2.2	0.4
Total exports from Mexico	100.0	100.0	100.0

Note.— Import quantities not provided due to differences in units of measure amongst reporting countries.

Source: Official export statistics under HS subheadings 6907.10, 6907.90, 6908.10, and 6908.90 for calendar year 2016; and HS subheadings 6907.21, 6907.22, 6907.23, 6907.30, and 6907.40 for calendar years 2017 and 2018, reported by Mexico's National Institute of Statistics and Geography ("INEGI"), in the IHS Markit, Global Trade Atlas database, accessed May 3, 2019.

The industry in Spain

Spain was the world's fifth largest producer of all types of ceramic tile in 2017, accounting for *** square meters (***) square feet) or *** percent of global output in that year.²⁰ Leading ceramic tile producers based in Spain include: Pamesa Cerámica and STN Group. These firms, operating only in Spain, reported exports accounting for almost three-quarters (73-74 percent) of their output in 2017.²¹ Spain's exports of ceramic tile increased by 13.2 percent from 2016 to 2018 (table VII-13). France (10.9 percent), the United States (9.5 percent), and the United Kingdom (6.1 percent) were the leading export destinations (in terms of value) in 2018, together accounting for over one-quarter (26.5 percent) of Spain's ceramic tile exports.

²⁰ Petition, exh. I-15-C "Ceramic tile market information;" Respondents postconference brief, exh. 7 "Information on third-country markets, excerpts from exhibit I-15 of the Petition," ***, p. 23.

²¹ "The World's Top Ceramic Tile Manufacturers," *Ceramic World Review*, August/October 2018, pp. 74-77.

Table VII-13**Ceramic tile: Exports from Spain by destination market, 2016-18**

Importer	Calendar year		
	2016	2017	2018
	Value (1,000 dollars)		
Exports from Spain to.-- United States	207,979	264,726	306,339
All other major destination markets.-- France	284,851	314,006	352,673
United Kingdom	183,431	190,823	196,629
Italy	100,251	115,886	126,344
Germany	103,453	107,469	122,236
Israel	108,279	115,346	115,365
Morocco	84,039	89,571	107,012
Saudi Arabia	162,419	131,892	104,917
Russia	79,649	88,108	89,049
Lebanon	84,420	95,755	88,408
Algeria	136,728	58,152	82,296
Portugal	52,903	62,640	73,431
All other exporters	1,266,090	1,404,855	1,465,449
Total exports from Spain	2,854,492	3,039,227	3,230,149
	Share of value (percent)		
Exports from Spain to.-- United States	7.3	8.7	9.5
All other major destination markets.-- France	10.0	10.3	10.9
United Kingdom	6.4	6.3	6.1
Italy	3.5	3.8	3.9
Germany	3.6	3.5	3.8
Israel	3.8	3.8	3.6
Morocco	2.9	2.9	3.3
Saudi Arabia	5.7	4.3	3.2
Russia	2.8	2.9	2.8
Lebanon	3.0	3.2	2.7
Algeria	4.8	1.9	2.5
Portugal	1.9	2.1	2.3
All other exporters	44.4	46.2	45.4
Total exports from Spain	100.0	100.0	100.0

Note.— Import quantities not provided due to differences in units of measure amongst reporting countries.

Source: Official export statistics under HS subheadings 6907.10, 6907.90, 6908.10, and 6908.90 for calendar year 2016; and HS subheadings 6907.21, 6907.22, 6907.23, 6907.30, and 6907.40 for calendar years 2017 and 2018, reported by Eurostat, in the IHS Markit, Global Trade Atlas database, accessed May 3, 2019.

Global exports

Data on global exports of ceramic tile during 2016-18 are presented in table VII-14. Italy (26.9 percent), China (25.6 percent), and Spain (18.6 percent) were the largest exporters (in terms of value) of ceramic tile in 2018, together accounting for nearly three-quarters (71.1 percent) of all global exports.

Table VII-14**Ceramic tile: Global exports by leading exporters, 2016-18**

Exporter	Calendar year		
	2016	2017	2018
	Value (1,000 dollars)		
Global exports from.--			
United States	57,089	44,732	46,611
China	5,530,830	4,426,096	4,452,183
Global exports from all other major reporting exporters.--			
Italy	4,381,265	4,587,630	4,676,543
Spain	2,854,492	3,039,227	3,230,149
India	666,211	830,476	1,016,483
Turkey	512,369	551,680	597,553
Brazil	308,917	344,500	449,878
Germany	407,928	432,963	439,557
Poland	281,073	298,900	312,761
Portugal	273,473	286,659	289,560
Mexico	319,823	274,743	262,838
Czech Republic	137,320	144,667	144,492
All other exporters	2,267,637	2,046,820	1,472,079
Total global exports	17,998,425	17,309,092	17,390,687
	Share of value (percent)		
Global exports from.--			
United States	0.3	0.3	0.3
China	30.7	25.6	25.6
Global exports from all other major reporting exporters.--			
Italy	24.3	26.5	26.9
Spain	15.9	17.6	18.6
India	3.7	4.8	5.8
Turkey	2.8	3.2	3.4
Brazil	1.7	2.0	2.6
Germany	2.3	2.5	2.5
Poland	1.6	1.7	1.8
Portugal	1.5	1.7	1.7
Mexico	1.8	1.6	1.5
Czech Republic	0.8	0.8	0.8
All other exporters	12.6	11.8	8.5
Total global exports	100.0	100.0	100.0

Note.—Data reported under subheadings includes some merchandise outside of the scope of this investigation. Import quantities not provided due to differences in units of measure amongst reporting countries.

Source: Official export statistics under HS subheadings 6907.10, 6907.90, 6908.10, and 6908.90 for calendar year 2016; and HS subheadings 6907.21, 6907.22, 6907.23, 6907.30, and 6907.40 for calendar years 2017 and 2018, reported by national customs authorities, in the IHS Markit, Global Trade Atlas database, accessed April 18, 2019.

APPENDIX A

***FEDERAL REGISTER* NOTICES**

The Commission makes available notices relevant to its investigations and reviews on its website, www.usitc.gov. In addition, the following tabulation presents, in chronological order, *Federal Register* notices issued by the Commission and Commerce during the current proceeding.

Citation	Title	Link
84 FR 15637, April 16, 2019	<i>Ceramic Tile From China; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations</i>	https://www.govinfo.gov/content/pkg/FR-2019-04-16/pdf/2019-07573.pdf
84 FR 20093, May 8, 2019	<i>Ceramic Tile From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation</i>	https://www.govinfo.gov/content/pkg/FR-2019-05-08/pdf/2019-09451.pdf
84 FR 20101, May 8, 2019	<i>Ceramic Tile From the People's Republic of China: Initiation of Countervailing Duty Investigation</i>	https://www.govinfo.gov/content/pkg/FR-2019-05-08/pdf/2019-09452.pdf

APPENDIX B

LIST OF STAFF CONFERENCE WITNESSES

CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

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

Subject: Ceramic Tile from China
Inv. Nos.: 701-TA-621 and 731-TA-1447 (Preliminary)
Date and Time: May 1, 2019 - 9:30 a.m.

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

OPENING REMARKS:

In Support of Imposition (**David M. Spooner**, Barnes & Thornburg LLP)
In Opposition to Imposition (**Craig A. Lewis**, Hogan Lovells US LLP)

In Support of the Imposition of Antidumping Duty and Countervailing Duty Orders:

Barnes & Thornburg LLP
Washington, DC
on behalf of

Coalition for Fair Trade in Ceramic Tile ("FTCT")

Gianni Mattioli, Executive Vice President for Marketing and
Research & Development, Dal-Tile Corporation

David Baran, Senior Vice President for Manufacturing Operations,
Dal-Tile Corporation

Ashley Donaldson, Director of Customer Care, Florida Tile

Tim Curran, Co-President, The Curran Group (Crossville Inc.)

Juan Molina, General Manager for Sales & Marketing, Del Conca USA

Don Haynes, Environmental/Sustainability Manager, Florim USA Inc.

Eric Astrachan, Executive Director, The Tile Council of North America

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

Bruce Malashevich, President, Economic Consulting Services, LLC

Jerrie Mirga, Economist, Economic Consulting Services, LLC

Gillian Priddy, Economist, Economic Consulting Services, LLC

David M. Spooner)
Christine Sohar Henter)
Nicholas Galbraith) – OF COUNSEL
Clinton Yu)
Adetayo Osuntogun)

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

Hogan Lovells
Washington, DC
on behalf of

M S International, Inc.
Arizona Tile
Bedrosians Tile and Stone
Anatolia Tile & Stone, Inc.
G.B.I. Stone & Tile, Inc.
Jeffrey Court, Inc.
StyleAccess, LLC, and
Surfaces, Inc.

Cengiz Elmaagacli, Sales and Marketing Director,
Anatolia Tile & Stone

Dan Hansen, Director, Business Development, Anatolia Tile & Stone

Marisa Bedrosian, Corporate Counsel, Bedrosians Tile and Stone

Michael Manke, Vice President - Sales Trade Division
Jeffrey Court, Inc.

Raj Shah, Co-President, M S International, Inc.

**In Opposition to the Imposition of
Antidumping Duty and Countervailing Duty Orders (continued):**

Gary Heinz, Vice President – Business Development,
Surfaces, Inc.

Dr. Mitchell Ginsburg, Associate Principal, Charles River Associates

Jonathan T. Stoel)
Craig A. Lewis) – OF COUNSEL
Benjamin O. Kostrzewa)

Brinks Gilson & Lione
Washington, DC
on behalf of

Guangdong Kito Ceramics Group Co., Ltd.
Hong Kong Kito Ceramic Co., Ltd.

Lyle B. Vander Schaaf) – OF COUNSEL

REBUTTAL/CLOSING REMARKS:

In Support of Imposition (**David M. Spooner**, Barnes & Thornburg LLP)
In Opposition to Imposition (**Jonathan T. Stoel**, Hogan Lovells US LLP)

APPENDIX C
SUMMARY DATA

Table C-1**Ceramic tile: Summary data concerning the U.S. market, 2016-18**

(Quantity=1,000 square feet; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per square foot;
Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Calendar year		
	2016	2017	2018	2016-18	2016-17	2017-18
U.S. consumption quantity:						
Amount.....	2,859,480	3,020,052	3,072,683	7.5	5.6	1.7
Producers' share (fn1).....	30.5	30.5	28.5	(2.0)	0.0	(2.0)
Importers' share (fn1):						
China.....	20.4	21.8	22.5	2.1	1.4	0.8
Nonsubject sources.....	49.1	47.7	49.0	(0.1)	(1.4)	1.2
All import sources.....	69.5	69.5	71.5	2.0	(0.0)	2.0
U.S. consumption value:						
Amount.....	3,283,069	3,478,664	3,517,335	7.1	6.0	1.1
Producers' share (fn1).....	36.1	36.2	34.7	(1.5)	0.1	(1.6)
Importers' share (fn1):						
China.....	15.8	16.9	17.8	2.0	1.2	0.9
Nonsubject sources.....	48.1	46.8	47.5	(0.6)	(1.3)	0.7
All import sources.....	63.9	63.8	65.3	1.5	(0.1)	1.6
U.S. imports from:						
China:						
Quantity.....	583,383	657,204	692,147	18.6	12.7	5.3
Value.....	517,431	588,915	626,340	21.0	13.8	6.4
Unit value.....	\$0.89	\$0.90	\$0.90	2.0	1.0	1.0
Ending inventory quantity.....	147,863	178,307	192,880	30.4	20.6	8.2
Nonsubject sources:						
Quantity.....	1,403,975	1,441,585	1,504,786	7.2	2.7	4.4
Value.....	1,579,579	1,628,906	1,671,702	5.8	3.1	2.6
Unit value.....	\$1.13	\$1.13	\$1.11	(1.3)	0.4	(1.7)
Ending inventory quantity.....	180,093	213,914	233,324	29.6	18.8	9.1
All import sources:						
Quantity.....	1,987,359	2,098,789	2,196,933	10.5	5.6	4.7
Value.....	2,097,011	2,217,820	2,298,042	9.6	5.8	3.6
Unit value.....	\$1.06	\$1.06	\$1.05	(0.9)	0.1	(1.0)
Ending inventory quantity.....	327,956	392,221	426,204	30.0	19.6	8.7
U.S. producers':						
Average capacity quantity.....	993,016	1,113,375	1,150,562	15.9	12.1	3.3
Production quantity.....	882,052	987,885	897,043	1.7	12.0	(9.2)
Capacity utilization (fn1).....	88.8	88.7	78.0	(10.9)	(0.1)	(10.8)
U.S. shipments:						
Quantity.....	872,121	921,263	875,750	0.4	5.6	(4.9)
Value.....	1,186,058	1,260,844	1,219,293	2.8	6.3	(3.3)
Unit value.....	\$1.36	\$1.37	\$1.39	2.4	0.6	1.7

Table continued on next page.

Table C-1--Continued

Ceramic tile: Summary data concerning the U.S. market, 2016-18

(Quantity=1,000 square feet; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per square foot; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Calendar year		
	2016	2017	2018	2016-18	2016-17	2017-18
U.S. producers':						
Export shipments:						
Quantity.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory quantity.....	256,112	313,796	325,810	27.2	22.5	3.8
Inventories/total shipments (fn1).....	***	***	***	***	***	***
Production workers.....	2,961	3,120	2,976	0.5	5.4	(4.6)
Hours worked (1,000s).....	6,454	6,821	6,331	(1.9)	5.7	(7.2)
Wages paid (\$1,000).....	160,620	174,373	167,142	4.1	8.6	(4.1)
Hourly wages (dollars per hour).....	\$24.89	\$25.56	\$26.40	6.1	2.7	3.3
Productivity (square feet per hour).....	136.7	144.8	141.7	3.7	6.0	(2.2)
Unit labor costs.....	\$0.18	\$0.18	\$0.19	2.3	(3.1)	5.6
Net sales:						
Quantity.....	880,832	930,202	884,830	0.5	5.6	(4.9)
Value.....	1,200,231	1,276,316	1,235,205	2.9	6.3	(3.2)
Unit value.....	\$1.36	\$1.37	\$1.40	2.4	0.7	1.7
Cost of goods sold (COGS).....	686,101	704,371	674,902	(1.6)	2.7	(4.2)
Gross profit or (loss).....	514,130	571,945	560,303	9.0	11.2	(2.0)
SG&A expenses.....	272,640	297,908	312,467	14.6	9.3	4.9
Operating income or (loss).....	241,490	274,037	247,836	2.6	13.5	(9.6)
Net income or (loss).....	223,780	247,989	218,094	(2.5)	10.8	(12.1)
Capital expenditures.....	313,633	194,157	161,715	(48.4)	(38.1)	(16.7)
Unit COGS.....	\$0.78	\$0.76	\$0.76	(2.1)	(2.8)	0.7
Unit SG&A expenses.....	\$0.31	\$0.32	\$0.35	14.1	3.5	10.3
Unit operating income or (loss).....	\$0.27	\$0.29	\$0.28	2.2	7.5	(4.9)
Unit net income or (loss).....	\$0.25	\$0.27	\$0.25	(3.0)	4.9	(7.5)
COGS/sales (fn1).....	57.2	55.2	54.6	(2.5)	(2.0)	(0.5)
Operating income or (loss)/sales (fn1).....	20.1	21.5	20.1	(0.1)	1.4	(1.4)
Net income or (loss)/sales (fn1).....	18.6	19.4	17.7	(1.0)	0.8	(1.8)

Notes:

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

fn2.--Undefined.

Source: Compiled from data submitted in response to Commission questionnaires and official import statistics of the U.S. Department of Commerce under HTS headings 6907 and 6908 accessed April 18, 2019.

APPENDIX D

DETAILED CHANNELS OF DISTRIBUTION DATA

Table D-1

Ceramic tile: U.S. producers' and U.S. importers' U.S shipments to distributors, 2016-18

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Table D-2

Ceramic tile: U.S. producers' and U.S. importers' U.S shipments to big box/home center retailers, 2016-18

* * * * *

Table D-3

Ceramic tile: U.S. producers' and U.S. importers' U.S shipments to other retailers, 2016-18

* * * * *

Table D-4

Ceramic tile: U.S. producers' and U.S. importers' U.S shipments to contractors/builders, 2016-18

* * * * *

Table D-5

Ceramic tile: U.S. producers' and U.S. importers' U.S shipments to other end users, 2016-18

* * * * *

APPENDIX E

QUARTERLY AND REGIONAL IMPORT DATA

Table E-1
Ceramic tile: Imports from sources, by quarter, January 2016-March 2019

Item	2016				
	Jan-Mar	April-Jun	Jul-Sep	Oct-Dec	Total
	Quantity (1,000 square feet)				
China	141,693	135,637	163,653	142,400	583,383
Nonsubject sources.--					
Brazil	20,942	26,913	28,278	23,175	99,309
Italy	80,766	108,187	101,540	95,058	385,551
Mexico	121,767	125,255	111,388	105,818	464,227
Spain	38,727	50,607	49,905	45,001	184,240
All other sources	63,659	70,431	69,268	67,290	270,648
Nonsubject sources	325,862	381,393	360,379	336,342	1,403,975
All sources	467,555	517,030	524,032	478,742	1,987,359
	Value (\$1,000)				
China	130,824	117,958	140,756	127,894	517,431
Nonsubject sources.--					
Brazil	13,573	16,842	18,046	15,000	63,461
Italy	158,074	209,097	199,723	183,930	750,824
Mexico	70,626	70,003	62,871	61,727	265,226
Spain	52,950	66,414	65,529	59,463	244,356
All other sources	61,074	69,327	63,772	61,540	255,713
Nonsubject sources	356,296	431,682	409,941	381,660	1,579,579
All sources	487,120	549,641	550,696	509,554	2,097,011
	Unit value (dollars per square foot)				
China	0.92	0.87	0.86	0.90	0.89
Nonsubject sources.--					
Brazil	0.65	0.63	0.64	0.65	0.64
Italy	1.96	1.93	1.97	1.93	1.95
Mexico	0.58	0.56	0.56	0.58	0.57
Spain	1.37	1.31	1.31	1.32	1.33
All other sources	0.96	0.98	0.92	0.91	0.94
Nonsubject sources	1.09	1.13	1.14	1.13	1.13
All sources	1.04	1.06	1.05	1.06	1.06

Table continued on next page.

Table E-1--Continued
Ceramic tile: Imports from sources, by quarter, January 2016-March 2019

Item	2017				
	Jan-Mar	April-Jun	Jul-Sep	Oct-Dec	Total
	Quantity (1,000 square feet)				
China	157,176	167,266	168,457	164,305	657,204
Nonsubject sources.--					
Brazil	22,004	28,681	32,015	28,514	111,215
Italy	90,749	106,009	94,234	87,774	378,766
Mexico	106,611	104,893	99,431	86,541	397,476
Spain	44,839	65,953	63,032	71,011	244,835
All other nonsubject sources	68,198	86,950	82,444	71,701	309,294
Nonsubject sources	332,401	392,487	371,156	345,542	1,441,585
All sources	489,577	559,753	539,612	509,847	2,098,789
	Value (\$1,000)				
China	142,597	152,379	151,582	142,356	588,915
Nonsubject sources.--					
Brazil	14,816	19,775	23,208	19,797	77,595
Italy	179,710	206,568	187,722	173,414	747,414
Mexico	58,146	58,408	54,886	48,513	219,953
Spain	61,542	84,429	79,006	82,323	307,299
All other nonsubject sources	64,218	75,829	71,903	64,693	276,644
Nonsubject sources	378,431	445,010	416,725	388,739	1,628,906
All sources	521,029	597,389	568,307	531,096	2,217,820
	Unit value (dollars per square foot)				
China	0.91	0.91	0.90	0.87	0.90
Nonsubject sources.--					
Brazil	0.67	0.69	0.72	0.69	0.70
Italy	1.98	1.95	1.99	1.98	1.97
Mexico	0.55	0.56	0.55	0.56	0.55
Spain	1.37	1.28	1.25	1.16	1.26
All other nonsubject sources	0.94	0.87	0.87	0.90	0.89
Nonsubject sources	1.14	1.13	1.12	1.13	1.13
All sources	1.06	1.07	1.05	1.04	1.06

Table continued on next page.

Table E-1--Continued
Ceramic tile: Imports from sources, by quarter, January 2016-March 2019

Item	2018				
	Jan-Mar	April-Jun	Jul-Sep	Oct-Dec	Total
	Quantity (1,000 square feet)				
China	175,165	162,708	179,640	174,634	692,147
Nonsubject sources.--					
Brazil	28,851	36,789	48,886	45,050	159,576
Italy	83,103	99,158	95,890	81,908	360,060
Mexico	95,415	99,345	98,977	85,356	379,093
Spain	72,764	83,045	82,607	71,793	310,208
All other nonsubject sources	69,658	78,916	77,816	69,458	295,849
Nonsubject sources	349,791	397,253	404,176	353,565	1,504,786
All sources	524,956	559,961	583,816	528,199	2,196,933
	Value (\$1,000)				
China	152,236	140,667	161,563	171,875	626,340
Nonsubject sources.--					
Brazil	18,578	23,466	31,406	27,947	101,396
Italy	160,479	199,378	189,015	161,026	709,899
Mexico	58,854	61,352	58,685	51,529	230,421
Spain	81,672	98,325	96,935	82,366	359,297
All other nonsubject sources	64,006	72,271	72,384	62,028	270,689
Nonsubject sources	383,589	454,791	448,426	384,896	1,671,702
All sources	535,825	595,458	609,988	556,770	2,298,042
	Unit value (dollars per square foot)				
China	0.87	0.86	0.90	0.98	0.90
Nonsubject sources.--					
Brazil	0.64	0.64	0.64	0.62	0.64
Italy	1.93	2.01	1.97	1.97	1.97
Mexico	0.62	0.62	0.59	0.60	0.61
Spain	1.12	1.18	1.17	1.15	1.16
All other nonsubject sources	0.92	0.92	0.93	0.89	0.91
Nonsubject sources	1.10	1.14	1.11	1.09	1.11
All sources	1.02	1.06	1.04	1.05	1.05

Table continued on next page.

Table E-1--Continued
Ceramic tile: Imports from sources, by quarter, January 2016-March 2019

Item	2019
	Jan-Mar
	Quantity (1,000 square feet)
China	123,174
Nonsubject sources.--	
Brazil	41,241
Italy	73,740
Mexico	102,013
Spain	78,700
All other nonsubject sources	77,754
Nonsubject sources	373,447
All sources	496,621
	Value (\$1,000)
China	118,267
Nonsubject sources.--	
Brazil	24,696
Italy	148,243
Mexico	61,857
Spain	91,686
All other nonsubject sources	66,462
Nonsubject sources	392,944
All sources	511,211
	Unit value (dollars per square foot)
China	0.96
Nonsubject sources.--	
Brazil	0.60
Italy	2.01
Mexico	0.61
Spain	1.17
All other nonsubject sources	0.85
Nonsubject sources	1.05
All sources	1.03

Source: Compiled from official import statistics of the U.S. Department of Commerce under HTS headings 6907 and 6908 accessed April 18, 2019.

Table E-2
Ceramic tile: Imports from sources, 2018

U.S. imports from	Border of entry				
	East	North	South	West	Grand total
	Quantity (1,000 square feet)				
China	247,348	25,365	183,049	236,384	692,147
Nonsubject sources	498,546	53,884	689,139	263,217	1,504,786
All sources	745,894	79,250	872,188	499,601	2,196,933
	Share across (percent)				
China	35.7	3.7	26.4	34.2	100.0
Nonsubject sources	33.1	3.6	45.8	17.5	100.0
All sources	34.0	3.6	39.7	22.7	100.0
	Share down (percent)				
China	33.2	32.0	21.0	47.3	31.5
Nonsubject sources	66.8	68.0	79.0	52.7	68.5
All sources	100.0	100.0	100.0	100.0	100.0

Note.--The "North" includes the following Customs entry districts: Chicago, Illinois; Cleveland, Ohio; Detroit, Michigan; Duluth, Minnesota; Great Falls, Montana; Milwaukee, Wisconsin; Minneapolis, Minnesota; and Pembina, North Dakota. The "West" includes the following Customs entry districts: Columbia-Snake, Oregon; Honolulu, Hawaii; Los Angeles, California; Nogales, Arizona; San Diego, California; San Francisco, California; and Seattle, Washington. The "South" includes the following Customs entry districts: Dallas-Fort Worth, Texas; El Paso, Texas; Houston-Galveston, Texas; Laredo, Texas; Miami, Florida; Mobile, Alabama; New Orleans, Louisiana; and Tampa, Florida. The "East" includes the following Customs entry districts: Baltimore, Maryland; Boston, Massachusetts; Buffalo, New York; Charleston, South Carolina; Charlotte, North Carolina; New York, New York; Norfolk, Virginia; Ogdensburg, New York; Philadelphia, Pennsylvania; Portland, Maine; San Juan, Puerto Rico; Savannah, Georgia; St. Albans, Vermont; and Washington, District of Columbia.

Source: Compiled from official import statistics of the U.S. Department of Commerce under HTS headings 6907 and 6908 accessed April 18, 2019.

APPENDIX F

U.S. PRODUCERS' FINANCIAL RESULTS BY COMPANY

Table F-1

Ceramic tile: Select results of U.S. producers' operations, by company, 2016-18

Item	Calendar year		
	2016	2017	2018
	Total net sales (1,000 square feet)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Total net sales quantity	880,832	930,202	884,830
	Total net sales (1,000 dollars)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Total net sales value	1,200,231	1,276,316	1,235,205
	Cost of goods sold (1,000 dollars)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Total COGS	686,101	704,371	674,902

Table continued.

Table F-1--Continued

Ceramic tile: Select results of U.S. producers' operations, by company, 2016-18

Item	Calendar year		
	2016	2017	2018
	Gross profit or (loss) (1,000 dollars)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Total gross profit or (loss)	514,130	571,945	560,303
	SG&A expenses (1,000 dollars)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Total SG&A expenses	272,640	297,908	312,467
	Operating income or (loss) (1,000 dollars)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Total operating income or (loss)	241,490	274,037	247,836

Table continued.

Table F-1--Continued

Ceramic tile: Select results of U.S. producers' operations, by company, 2016-18

Item	Calendar year		
	2016	2017	2018
	Net income or (loss) (1,000 dollars)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Total net income or (loss)	223,780	247,989	218,094
	COGS to net sales ratio (percent)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average COGS to net sales ratio	57.2	55.2	54.6
	Gross profit or (loss) to net sales ratio (percent)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average gross profit or (loss) to net sales ratio	42.8	44.8	45.4

Table continued.

Table F-1--Continued

Ceramic tile: Select results of U.S. producers' operations, by company, 2016-18

Item	Calendar year		
	2016	2017	2018
	SG&A expense to net sales ratio (percent)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average SG&A expense to net sales ratio	22.7	23.3	25.3
	Operating income or (loss) to net sales ratio (percent)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average operating income or (loss) to net sales ratio	20.1	21.5	20.1
	Net income or (loss) to net sales ratio (percent)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average net income or (loss) to net sales ratio	18.6	19.4	17.7

Table continued.

Table F-1--Continued

Ceramic tile: Select results of U.S. producers' operations, by company, 2016-18

Item	Calendar year		
	2016	2017	2018
	Unit net sales value (dollars per square foot)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average unit net sales value	1.36	1.37	1.40
	Unit raw materials (dollars per square foot)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average unit raw materials	0.23	0.23	0.23
	Unit direct labor (dollars per square foot)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average unit direct labor	0.11	0.11	0.11

Table continued.

Table F-1--Continued

Ceramic tile: Select results of U.S. producers' operations, by company, 2016-18

Item	Calendar year		
	2016	2017	2018
	Unit other factory costs (dollars per square foot)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average unit other factory costs	0.44	0.41	0.42
	Unit COGS (dollars per square foot)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average unit COGS	0.78	0.76	0.76
	Unit gross profit or (loss) (dollars per square foot)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average unit gross profit or (loss)	0.58	0.61	0.63

Table continued.

Table F-1--Continued

Ceramic tile: Select results of U.S. producers' operations, by company, 2016-18

Item	Calendar year		
	2016	2017	2018
	Unit SG&A expenses (dollars per square foot)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average unit SG&A expense	0.31	0.32	0.35
	Unit operating income or (loss) (dollars per square foot)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average unit operating income or (loss)	0.27	0.29	0.28
	Unit net income or (loss) (dollars per square foot)		
American Wonder	***	***	***
Crossville	***	***	***
Dal-Tile	***	***	***
Del Conca	***	***	***
Florida Tile	***	***	***
Florim	***	***	***
Interceramic	***	***	***
Landmark	***	***	***
Stonepeak	***	***	***
Average unit net income or (loss)	0.25	0.27	0.25

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

