Gray Portland Cement and Cement Clinker from Japan

Investigation No. 731-TA-461 (Fifth Review)

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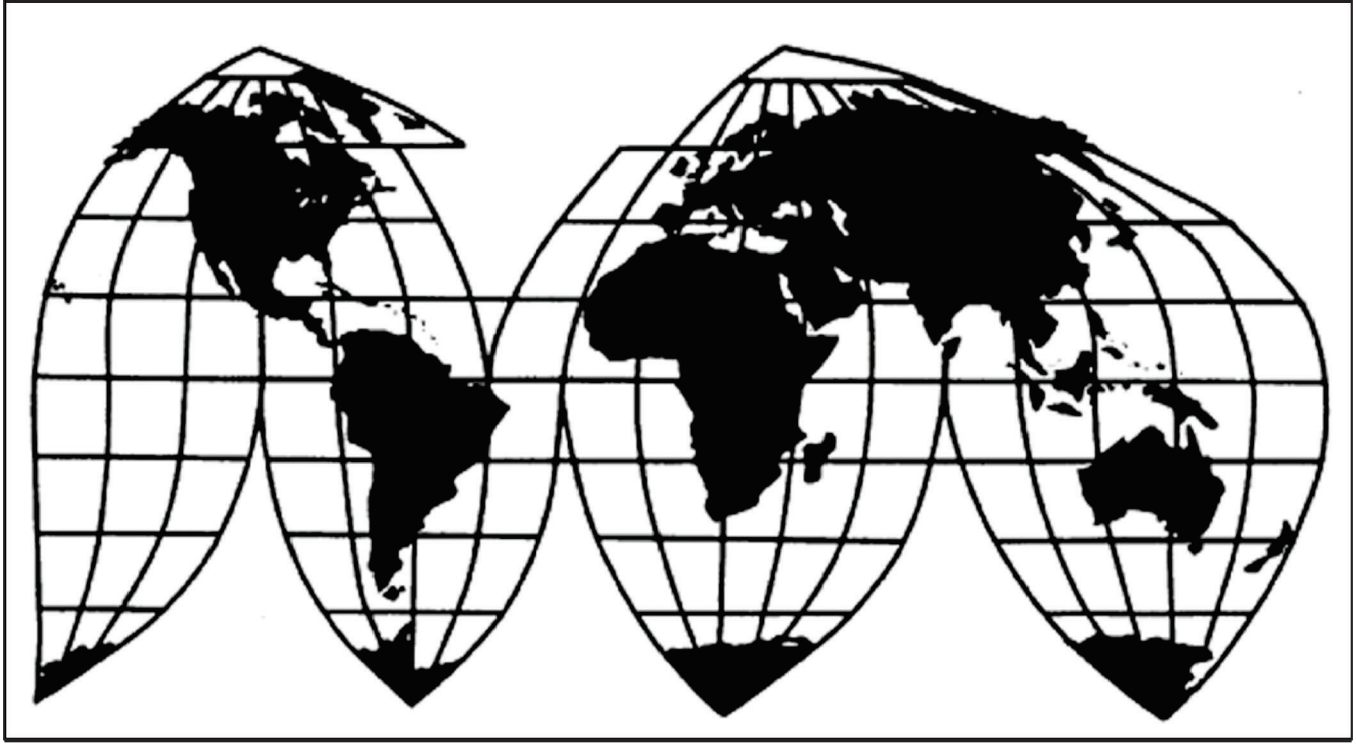
U.S. International Trade Commission



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U.S. International Trade Commission

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Address all communications to
Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

U.S. International Trade Commission

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-461 (Fifth Review)

Gray Portland Cement and Cement Clinker from Japan

DETERMINATION

On the basis of the record[1] developed in the subject five-year review, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that revocation of the antidumping duty order on gray portland cement and cement clinker from Japan would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

BACKGROUND

The Commission instituted this review on June 1, 2022 (87 FR 33210) and determined on September 6, 2022, that it would conduct an expedited review (87 FR 78995, December 23, 2022).

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

Views of the Commission

Based on the record in this five-year review, we determine under section 751(c) of the Tariff Act of 1930, as amended ("the Tariff Act"), that revocation of the antidumping duty order on gray portland cement and cement clinker ("cement") from Japan would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

I. Background

Original Investigation. On May 18, 1990, the Ad Hoc Committee of Southern California Producers of Gray Portland Cement filed an antidumping duty petition regarding imports of cement from Japan.[1] In April 1991, the Commission determined that an industry in the United States was materially injured by reason of imports of cement from Japan that had been found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value ("LTFV").[2] Commerce subsequently published the antidumping duty order on May 10, 1991.[3] [4]

First Review. In August 1999, the Commission instituted its first five-year review of the antidumping duty order.[5] It conducted a full review and determined that revocation of the

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[1] Confidential Report, INV-UU-084 (August 24, 2022) ("CR") at I-3; *Gray Portland Cement and Cement Clinker from Japan*, Inv. No. 731-TA-461 (Fifth Review), USITC Pub. 5401 (Jan. 2023) ("PR") at I-3. The original Committee members included National Cement Co. ("National") and Southwestern Portland Cement. *Id.* at I-3 n.7. On June 22, 1990, petitioners filed an amendment to the original petition to add the following co-petitioners: Independent Workers of North America, Locals 49, 52, 89, 192, and 471 and the International Union of Operating Engineers, Local 12. *Id.*

[2] *Gray Portland Cement and Cement Clinker from Japan*, Inv. No. 731-TA-461 (Final), USITC Pub. 2376 (Apr. 1991) at 1, A-1 ("*Original Determination*").

[3] *Antidumping Duty Order and Amendment to Final Determination of Sales at Less Than Fair Value: Gray Portland Cement and Clinker from Japan*, 56 Fed. Reg. 21658 (May 10, 1991).

[4] In April 1993, the Court of International Trade ("CIT") remanded the Commission's determination with instructions to review the material injury analysis. *See Mitsubishi Materials Corp. v. United States*, Slip op. 93-62 (Ct. Int'l Trade, Apr. 27, 1993). In a subsequent decision, the Commission amended their final determination to find that an industry in the United States is threatened with material injury by reason of imports of cement from Japan. *Gray Portland Cement and Cement Clinker from Japan, Views on Remand*, Inv. No. 731-TA-461 (Final), USITC Pub. 2657 (June 1993) ("*Remand Determination*").

[5] *Gray Portland Cement and Cement Clinker from Japan, Mexico, and Venezuela*, 64 Fed. Reg. 62689 (Aug. 2, 1999). The Commission instituted reviews of antidumping and countervailing duty orders on cement from Mexico and Venezuela in the same notice. *See id.* The suspended orders on cement (Continued…)

antidumping duty order would be likely to lead to continuation or recurrence of material injury to the California regional industry within a reasonably foreseeable time.[6] Effective November 15, 2000, Commerce issued a notice of continuation of the order.[7]

Second Review. In October 2005, the Commission instituted its second five-year review of the antidumping duty order.[8] It conducted an expedited review and determined that revocation of the antidumping duty order would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.[9] Effective June 16, 2006, Commerce issued a notice of continuation of the order.[10]

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from Venezuela were subsequently terminated. *See Gray Portland Cement and Cement Clinker from Japan, Mexico, and Venezuela*, Inv. Nos. 303-TA-21 (Review) and 731-TA-451, 461, and 519 (Review), USITC Pub. 3361 at 20 (Oct. 2000) ("*First Review*").

[6] *First Review*, USITC Pub. 3361 at 47. The Commission terminated the suspended antidumping and countervailing duty investigations on subject imports from Venezuela because subject imports were not likely to be sufficiently concentrated to satisfy the import concentration requirements for a regional industry analysis, which prevents the Commission from proceeding to the likely continuation or recurrence of material injury analysis. *Id.* at 20; *see also Texas Crushed Stone Co. v. United States*, 35 F.3d 1535 at 1543 (Fed. Cir. 1994), *aff'g*, 822 F. Supp. 773 at 781 (Ct. Int'l Trade 1993) (upholding Commission determination to terminate investigation upon finding that import concentration was not sufficient). Upon determining that subject imports from Mexico and Japan should not be cumulated because they would likely have limited geographical overlap and would likely not compete under similar conditions of competition if the antidumping duty orders were revoked, *id.* at 28, the Commission determined that revocation of the antidumping duty order on Mexico would be likely to lead to continuation or recurrence of material injury to the Southern Tier regional industry within a reasonably foreseeable time, *id.* at 47.

[7] *Continuation of Antidumping Duty Orders: Gray Portland Cement and Cement Clinker from Japan and Mexico*, 65 Fed. Reg. 68979 (Nov. 15, 2000). In November 2000, Commerce also published its termination of the suspended antidumping duty and countervailing duty investigations cement from Venezuela, which was retroactively effective from January 2000. *Antidumping and Countervailing Duties; Gray Portland Cement and Cement Clinker from Venezuela*, 65 Fed. Reg. 68974 (Nov. 15, 2000).

[8] *Gray Portland Cement and Cement Clinker from Japan and Mexico*, 70 Fed. Reg. 57617 (Oct. 3, 2005). The Commission instituted a review of the antidumping duty order on cement from Mexico in the same notice. *See id.*

[9] *Gray Portland Cement and Cement from Japan*, Inv. No. 731-TA-461 (Second Review), USITC Pub. 3856 (May 2006) at 1 ("*Second Review*").

[10] *Gray Portland Cement and Cement Clinker from Japan: Continuation of Antidumping Duty Order*, 71 Fed. Reg. 34892 (June 16, 2006). The Commission also determined that it should proceed to a full review in the five-year review concerning the antidumping duty order on subject imports from Mexico, having found that both the responses of the domestic interested party and the respondent interested party group to be adequate. On March 6, 2006, the Office of the United States Trade Representative, Secretaria de Economia of the United Mexican States, and Commerce entered into an Agreement on Trade in Cement. *Gray Portland Cement and Clinker from Mexico: Agreement Between the Office of the United States Trade Representative, the United States Department of Commerce and*
(Continued…)

Third Review. In May 2011, the Commission instituted its third five-year review of the antidumping duty order.[11] It conducted an expedited review and determined that revocation of the antidumping duty order would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.[12] Effective December 16, 2011, Commerce issued a notice of continuation of the order.[13]

Fourth Review. In November 2016, the Commission instituted its fourth five-year review of the antidumping duty order.[14] It conducted an expedited review and determined that revocation of the antidumping duty order would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.[15] Effective July 17, 2017, Commerce issued a notice of continuation of the order.[16]

Current Five-Year Review. The Commission instituted this five-year review on June 1, 2022.[17] It received one response to the notice of institution from the Committee for Fairly Traded Japanese Cement ("Committee"), consisting of two domestic producers of cement; the United Steel, Paper & Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union ("Steelworkers"), which represents workers at five cement plants

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Secretaria de Economia of Mexico on Trade in Cement, 71 Fed. Reg. 13082 (March 14, 2006). Pursuant to the agreement, the domestic industry submitted letters stating that they had "no interest" in maintaining the order after the expiration of the agreement. Effective April 1, 2009, Commerce revoked the order after determining that the terms of the agreement, and therefore the terms of the "no interest" letters from producers that accounted for substantially all of the production of the domestic like product, had been met. *Gray Portland Cement and Clinker from Mexico: Final Results of Changed-Circumstances Review, Revocation of Antidumping Duty Order, and Termination of Five-Year (Sunset) Review of Antidumping Duty Order*, 74 Fed. Reg. 15435 (April 6, 2009); *see also Gray Portland Cement and Cement Clinker from Mexico: Termination of Review*, 74 Fed. Reg. 25281 (May 27, 2009).

[11] *Gray Portland Cement and Cement Clinker from Japan; Institution of a Five-Year Review Concerning the Antidumping Duty Order on Gray Portland Cement and Cement Clinker from Japan*, 76 Fed. Reg. 24519 (May 2, 2011).

[12] *Gray Portland Cement and Cement Clinker from Japan*, Inv. No. 731-TA-461 (Third Review), USITC Pub. 4281 (December 2011) at 1 ("*Third Review*").

[13] *Gray Portland Cement and Clinker from Japan: Continuation of Antidumping Duty Order*, 76 Fed. Reg. 78240 (Dec. 16, 2011).

[14] *Gray Portland Cement and Cement Clinker from Japan; Institution of a Five-Year Review*, 81 Fed. Reg. 75848 (Nov. 1, 2016).

[15] *Gray Portland Cement and Cement Clinker from Japan*, Inv. No. 731-TA-461 (Fourth Review), USITC Pub. 4704 at 1 (June 2017) ("*Fourth Review*"). Vice Chairman Johanson and Commissioner Broadbent voted to conduct a full review. *Id.* at 5 n.15.

[16] *Gray Portland Cement and Cement Clinker from Japan: Continuation of Antidumping Duty Order*, 82 Fed. Reg. 32682 (July 17, 2017).

[17] *Gray Portland Cement and Cement Clinker from Japan; Institution of a Five-Year Review*, 87 Fed. Reg. 33210 (June 1, 2022).

in California; and the International Union of Operating Engineers ("Operating Engineers"), which represents workers at one cement plant in California (collectively, "Domestic Interested Parties").[18] No respondent interested party responded to the notice of institution or participated in this review. On September 6, 2022, the Commission determined the domestic interested party group response was adequate and the respondent interested party group response was inadequate.[19] Finding no other circumstances that would warrant conducting a full review, the Commission determined to conduct an expedited review of the antidumping duty order.[20] Domestic Interested Parties submitted joint final comments pursuant to Commission Rule 207.62(d)(1) regarding the determination that the Commission should reach.[21]

U.S. industry data in this review are based on data provided by the Domestic Interested Parties in their response to the notice of institution, which is estimated to account for *** percent of total California cement production in 2021.[22] U.S. import data and related data are

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[18] *See Domestic Interested Parties' Response to Notice of Institution*, EDIS Doc. 774422 (July 1, 2022) ("*Domestic Response*"); *Domestic Interested Parties' Confidential Response to Notice of Institution*, EDIS Doc. 774404 (July 1, 2022) ("*Confidential Domestic Response*"); *Domestic Interested Parties' Response to Notice of Institution Cure Letter*, EDIS Doc. 777238 (July 14, 2022) ("*Domestic Response Cure Letter*"); CR/PR at I-2.

The Committee is an ad hoc association consisting of the following two domestic producers of cement: Cemex, Inc. ("Cemex") and National. The Steelworkers is a labor union that represents workers employed in the production of cement at California Portland Cement Co. (Oro Grande and Redding, California) ("CalPortland"), Cemex (Victorville, California), Martin Marietta Materials, Inc. (Tehachapi, California) ("Martin Marietta"), and National (Lebec, California). The Operating Engineers is a labor union that represents workers employed in the production of cement at CalPortland (Mojave, California).

[19] *Commission Adequacy Vote in Gray Portland Cement and Cement Clinker from Japan*, EDIS Doc. 786425 (Sept. 6, 2022).

[20] *Gray Portland Cement and Cement Clinker from Japan; Scheduling of an Expedited Five-Year Review*, 87 Fed. Reg. 78995 (Dec. 23, 2022). Chairman Johanson voted for a full review of the order given the amount of time that has transpired since the Commission last conducted a full review of the order, more than 22 years ago. Chairman Johanson believes that conducting a full review would have provided the Commission with a robust record on which to base its judgments regarding the domestic industry. This is particularly relevant in this review, which involves the only remaining order based on a regional industry finding.

[21] *Domestic Interested Parties' Final Comments*, EDIS Doc. 787281 (Jan. 4, 2023) ("*Domestic Final Comments*"); *Confidential Domestic Interested Parties' Final Comments*, EDIS Doc. 787165 (Jan. 3, 2023) ("*Confidential Domestic Final Comments*").

[22] CR/PR at Table I-2. Commission staff estimates that Domestic Interested Parties represent approximately *** percent of total U.S. production of cement during 2021. *Id.* at Table I-2, Note.

based on Commerce's official import statistics.[23] Foreign industry data and related information are based on information from the original investigations and prior five-year reviews, information submitted by Domestic Interested Parties in their response to the notice of institution, and publicly available information compiled by the Commission.[24] Additionally, two purchasers, ***, responded to the Commission's adequacy phase questionnaire.[25]

II. Domestic Like Product and Industry

A. Domestic Like Product

In making its determination under section 751(c) of the Tariff Act, the Commission defines the "domestic like product" and the "industry."[26] 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 under this subtitle."[27] The Commission's practice in five-year reviews is to examine the domestic like product definition from the original investigation and consider whether the record indicates any reason to revisit the prior findings.[28]

Commerce has defined the imported merchandise within the scope of the order under review as follows:

> The products covered by the *Order* are cement and cement clinker from Japan. Cement is a hydraulic cement and the primary component of concrete. Cement clinker, an intermediate material produced when manufacturing cement, has no use other than grinding into finished cement. Microfine cement was specifically excluded from the *Order*. Cement is currently classifiable under the Harmonized

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[23] CR/PR at Table I-9. Official Commerce statistics may be overstated as the pertinent HTS statistical reporting numbers may contain products outside the scope of this review. *See* CR/PR at Table I-9, Note.

[24] CR/PR at Tables I-13 through I-18.

[25] CR/PR at D-3.

[26] 19 U.S.C. § 1677(4)(A).

[27] 19 U.S.C. § 1677(10); *see*, *e.g., Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Dep't of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996); *Torrington Co. v. United States*, 747 F. Supp. 744, 748-49 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991); *see also* S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979).

[28] *See*, *e.g.*, *Internal Combustion Industrial Forklift Trucks from Japan*, Inv. No. 731-TA-377 (Second Review), USITC Pub. 3831 at 8-9 (Dec. 2005); *Crawfish Tail Meat from China*, Inv. No. 731-TA-752 (Review), USITC Pub. 3614 at 4 (July 2003); *Steel Concrete Reinforcing Bar from Turkey*, Inv. No. 731-TA-745 (Review), USITC Pub. 3577 at 4 (Feb. 2003).

> Tariff Schedule (HTS) subheading 2523.29 and cement clinker is currently classifiable under HTS subheading 2523.10. Cement has also been entered under HTS subheading 2523.90 as "other hydraulic cements." The HTS subheadings are provided for convenience and customs purposes. The written product description remains dispositive as to the scope of the product covered by the *Order*.[29]

Gray portland cement is a hydraulic industrial binding agent manufactured from a proportioned mixture of raw materials that is crushed, ground, and blended into a mill feed and then sintered at about 2,700 degrees Fahrenheit. Cement clinker is the intermediate product resulting from the sintering stage of the production process and has no use other than for the production of cement. Cement is used predominantly in the production of concrete, which, in turn, is used almost wholly by the construction industry. The chief end uses are highway construction using ready-mix concrete and building construction using ready-mix concrete, concrete blocks, and precast concrete units. All cement, including subject imports from Japan, generally conforms to the standards established by the American Society for Testing and Materials ("ASTM").[30]

In the original investigation and prior reviews, the Commission defined a single domestic like product corresponding to cement, coextensive with Commerce's scope definition.[31]

In this review, there is no new information on the record suggesting that the characteristics and uses of domestically produced cement have changed since the prior reviews so as to warrant revisiting the Commission's domestic like product definition.[32] Domestic Interested Parties argue that the Commission should again define a single domestic like product coextensive with Commerce's scope definition.[33] Accordingly, we again define a single domestic like product encompassing those domestically produced cement products described by Commerce's scope definition.

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[29] Commerce Memorandum from James Maeder to Abdelali Elouradia, *Issues and Decision Memorandum for the Final Results of the Expedited Sunset Review of the Antidumping Duty Order on Gray Portland Cement and Clinker from Japan*, EDIS Doc. 786716 (Aug. 28, 2022) at 2 ("*Commerce I&D Memorandum*").

[30] CR/PR at I-8-16.

[31] *Original Determination*, USITC Pub. 2376 at 13; *First Review*, USITC Pub. 3361 at 7-8; *Second Review*, USITC Pub. 3856 at 6; *Third Review*, USITC Pub. 4281 at 5; *Fourth Review*, USITC Pub. 4704 at 7. There was no dispute about the appropriate domestic like product definition in any of the prior proceedings.

[32] *See generally* CR/PR at I-8-16.

[33] *Domestic Response* at 54.

B. Domestic Industry

Section 771(4)(A) of the Tariff Act defines the relevant industry 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."[34] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

1. Regional Industry

a. General Considerations

Section 752(a)(8) of the Act provides the Commission a special rule in five-year reviews for regional industries. The statute states that in a five-year review involving a regional industry:

> The Commission may base its determination on the regional industry defined in the original investigation under this subtitle, another region that satisfies the criteria established in section 1677(4)(c) of this title, or the United States as a whole. In determining if a regional industry analysis is appropriate for the determination in review, the Commission shall consider whether the criteria established in section 1677(4)(c) of this title are likely to be satisfied if the order is revoked or the suspended investigation is terminated.[35]

Regarding the first sentence of this statutory provision, the Uruguay Round Agreements Act ("URAA") Statement of Administrative Action ("SAA") clarifies that "the Commission is not bound by any determination it may have made in the original investigation regarding the existence of a regional industry."[36] On the other hand, the SAA appears to contemplate that the Commission have "sufficient evidence" to warrant revisiting its original regional industry determination.[37]

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[34] 19 U.S.C. § 1677(4)(A). The definitions in 19 U.S.C. § 1677 are applicable to the entire subtitle containing the antidumping and countervailing duty laws, including 19 U.S.C. §§ 1675 and 1675a. *See* 19 U.S.C. § 1677.

[35] 19 U.S.C. § 1675a(a)(8).

[36] SAA, H.R. Rep. 103-316, vol. I at 887 (1994).

[37] Specifically, the SAA states:

(Continued…)

The Commission takes into account any effect that the order or suspension agreement may have had on the marketing and distribution patterns for the subject product in analyzing whether the market isolation and import concentration criteria are likely to be satisfied in the event of revocation or termination.[38] It also takes into account any prior regional industry definition and any product characteristics that support a regional market analysis and whether any changes in the isolation of the region or import concentration are related to the imposition of the order or acceptance of the suspension agreement.[39]

In the original investigation and prior reviews, the Commission took a series of steps in considering whether use of a regional industry analysis was appropriate. First, it examined whether a regional market existed based on the two "market isolation" factors identified in the statute. As a second step, it then considered whether imports were concentrated in any regional market so defined.[40]

The statute, 19 U.S.C. § 1677(4)(c), provides that:

If there is sufficient evidence to warrant revisiting the original regional industry determination, the Commission may base its likelihood determination on: (1) the regional industry defined by the Commission in the original investigation; (2) another regional industry satisfying the criteria of amended section 771(4)(c); or (3) the United States industry as a whole.
SAA at 887.

[38] SAA at 888. The SAA specifically states:

> Given the predictive nature of a likelihood of injury analysis, the Commission's analysis in regional industry investigations will be subject to no greater degree of certainty than in a review involving a national industry. Because the issuance of an order or the acceptance of a suspension agreement may have affected the marketing and distribution patterns of the product in question, the Commission's analysis of a regional industry should take into account whether the market isolation and import concentration criteria in section 771(4)(C) are likely to be satisfied in the event of revocation or termination.

Id.

[39] Specifically, the SAA states:

> The Commission should take into account any prior regional industry definition, whether the product at issue has characteristics that naturally lead to the formation of regional markets (e.g., whether it has a low value-to-weight ratio and is fungible), and whether any changes in the isolation of the region or in import concentration are related to the imposition of the order or the acceptance of a suspension agreement.

SAA at 888.

[40] *Original Determination*, USITC Pub. 2376 at 17-21; *First Review*, USITC Pub. 3361 at 13-15; *Second Review*, USITC Pub. 3856 at 10-12; *Third Review*, USITC Pub. 4281 at 8-11; *Fourth Review*, USITC Pub. 4704 at 8-13.

> In appropriate circumstances, the United States, for a particular product market, may be divided into 2 or more markets and the producers within each market may be treated as if they were a separate industry if—
>
> (i) the producers within such market sell all or almost all of their production of the like product in question in that market, and
>
> (ii) the demand in that market is not supplied, to any substantial degree, by producers of the product in question located elsewhere in the United States.
>
> In such appropriate circumstances, material injury, the threat of material injury, or material retardation of the establishment of an industry may be found to exist with respect to an industry even if the domestic industry as a whole, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of that product, is not injured, if there is a concentration of dumped imports or imports of merchandise benefitting from a countervailable subsidy into such an isolated market and if the producers of all, or almost all, of the production within that market are being materially injured or threatened by material injury, or if the establishment of an industry is being materially retarded, by reason of the dumped imports or imports of merchandise benefitting from a countervailable subsidy. The term "regional industry" means the domestic producers within a region who are treated as a separate industry under this subparagraph.[41]

b. The Commission's Original Determination and Prior Reviews

In the original investigation and prior reviews, the Commission found that appropriate circumstances existed to conduct a regional industry analysis. In the original determination, the Commission found that Southern California was the appropriate region for its analysis.[42] It also

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[41] 19 U.S.C. § 1677(4)(c). The CIT has described the steps taken by the Commission in a regional industry analysis as follows:

> The statute sets up three prerequisites which must be satisfied before the Commission can reach an affirmative determination under a regional industry analysis. The Commission must determine that there is: (1) a regional market satisfying the requirements of the statute, (2) a concentration of dumped imports into the regional market, and (3) material injury or threat thereof to producers of all or almost all of the regional production, or material retardation to the establishment of an industry, due to the subsidized or dumped imports. The Commission will move on to the next step only if each preceding step is satisfied.

Texas Crushed Stone Co. v. United States, 822 F. Supp. 773, 777 (Ct. Int'l Trade 1993), *aff'd*, 35 F.3d 1535 (Fed. Cir. 1994) ("{T}he ITC's case-by-case approach represents a 'legitimate policy choice {} made by the agency in interpreting and applying the statute.'").

[42] *Original Determination*, USITC Pub. 2376 at 17-20.

considered whether the state of California was the appropriate region. A plurality determined that both regions satisfied the market isolation criteria but found the Southern California region to be the more appropriate region for analysis.[43] In the first review, the Commission revisited its regional industry definition and found that there had been integration of the Northern and Southern California regions.[44] The Commission then found the market isolation criteria satisfied and defined the region as the state of California.[45] In the second, third, and fourth reviews, the Commission again defined the pertinent regional industry as cement producers in the state of California.[46]

c. Analysis

For the reasons discussed below, we determine that the record in this review supports a finding of a regional industry, with the pertinent region defined as the state of California. This is the same region that Domestic Interested Parties propose we use.[47]

The statutory scheme requires that the Commission take into account its prior regional industry definition in determining whether to conduct a regional analysis in this fifth review. In determining whether to proceed on a regional industry basis, the proper inquiry is not whether the regional industry criteria in section 771(4)(c) are presently satisfied, but whether these criteria are likely to be satisfied if the order subject to review is revoked.

Below we provide an analysis of the market isolation factors. Because this current review and the three most recent reviews were expedited, the most recent detailed information available concerning most of the pertinent market isolation criteria remains that compiled in the first review.

1) Appropriate Circumstances

In determining whether to conduct a regional industry analysis, the Commission must take into account characteristics that naturally lead to the formation of a regional market, such

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[43] *Original Determination*, USITC Pub. 2376 at 17-20 (noting that "Southern Californian producers shipped an increasing percentage of their production to destinations in Northern California during the period of investigation").

[44] *First Review*, USITC Pub. 3361 at 13-15.

[45] *First Review*, USITC Pub. 3361 at 17-18.

[46] *Second Review*, USITC Pub. 3856 at 11-12; *Third Review*, USITC Pub. 4281 at 11; *Fourth Review*, USITC Pub. 4704 at 13.

[47] *Domestic Response* at 1-2.

as low value-to-weight ratio and fungibility.[48] In the original investigation, the Commission found that appropriate circumstances existed for a regional industry analysis. Specifically, the Commission found "{g}ray portland cement and clinker has a low value-to-weight ratio and is fungible. Thus, high transportation costs make the areas in which cement is produced and marketed necessarily isolated and insular."[49] In the first review, the Commission found that appropriate circumstances existed to conduct a regional analysis and emphasized that cement is fungible and possesses a low value-to-weight ratio.[50] The ratio substantially affected transportation costs, which were an important component of cement prices.[51] As a result, the Commission found that most cement was shipped to customers within 200 miles of the production site or import terminal.[52] In the second, third, and fourth reviews, the Commission found that these conditions had not changed.[53]

Domestic Interested Parties argue that the conditions the Commission used to justify the use of a regional industry analysis in the original determination and the prior reviews have not changed.[54] There is no new information in the record of this review to suggest the contrary.[55] We therefore find that there are appropriate circumstances to engage in a regional industry analysis.

2) Appropriate Region

We now consider whether the market isolation criteria are met. In the original determination, the Commission considered whether the Southern California region, as proposed by the petitioners, or a larger region, the state of California, was the appropriate region.[56] A plurality determined that both regions satisfied the market isolation criteria but found that Southern California was the more appropriate region for analysis because "a smaller

[48] SAA at 888.
[49] *Original Determination*, USITC Pub. 2376 at 16-17.
[50] *First Review*, USITC Pub. 3361 at 12.
[51] *First Review*, USITC Pub. 3361 at 12.
[52] *First Review*, USITC Pub. 3361 at 12.
[53] *Second Review*, USITC Pub. 3856 at 9; *Third Review*, USITC Pub. 4281 at 9; *Fourth Review*, USITC Pub. 4704 at 11.
[54] *Domestic Response* at 1-2, 9-10.
[55] CR/PR at I-33-34.
[56] *Original Determination*, USITC Pub. 2376 at 17-20.

percentage of Southern California consumption was supplied by producers outside the region than is the case for the state as a whole."[57]

In the first review, the Commission revisited its regional industry definition because it found increased integration of the Southern and Northern California markets since the original investigation.[58] It also found that the market isolation criteria were satisfied for the state of California region because: (1) cement producers in California shipped 80 to 85 percent of their domestic shipments within the state during the period of review; and (2) U.S. producers outside the state only supplied 3 to 6 percent of state of California regional consumption during the period.[59] Accordingly, having found that the two market isolation criteria were satisfied, the Commission determined that a regional industry existed for the state of California in the first review.[60]

In the second, third, and fourth reviews, the Commission again defined the pertinent regional industry as the state of California.[61] In all of these reviews, the Commission found that nothing in the record suggested that the patterns observed in the original investigation or first review with regard to the market isolation criteria had changed or would change within the reasonably foreseeable future.[62]

In this current review, the record contains neither information additional to that provided in the first review nor any indication that the patterns observed in that review and the original investigations have changed.[63] Accordingly, we find that the market isolation criteria are again satisfied based on the information available, as we did in the three previous reviews, and define the pertinent regional industry to be cement producers in the state of California.

3) Concentration of Imports

In the next step of the regional industry analysis, the Commission determines whether the statutory requirement of concentration of imports within the pertinent region is satisfied.

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[57] *Original Determination*, USITC Pub. 2376 at 17-20. In making this finding, the Commission majority noted that "Southern Californian producers shipped an increasing percentage of their production to destinations in Northern California during the period of investigation." *Id.* at 19.

[58] *First Review*, USITC Pub. 3361 at 14.

[59] *First Review*, USITC Pub. 3361 at 14-15.

[60] *First Review*, USITC Pub. 3361 at 14-15.

[61] *Second Review*, USITC Pub. 3856 at 11-12; *Third Review*, USITC Pub. 4281 at 11; *Fourth Review*, USITC Pub. 4704 at 12.

[62] *Second Review*, USITC Pub. 3856 at 10; *Third Review*, USITC Pub. 4281 at 9-10; *Fourth Review*, USITC Pub. 4704 at 12.

[63] *Domestic Response* at 1-2.

In the first review, the Commission found that the statutory criterion concerning subject import concentration in the region was satisfied.[64] Although the volume of subject imports from Japan was very small during the first period of review, the percentage of the volume of subject imports from Japan to the United States entering the state of California was 70 percent in 1998 and 97 percent in 1999.[65] Based on these data and the information from the original investigation, the Commission concluded that upon revocation, subject imports from Japan would be concentrated in the state of California.[66]

In the second review, the Commission found that subject imports into the United States were virtually nonexistent during the period of review, but at least 50 percent of annual subject imports from Japan entered the state of California.[67] It concluded that, based on the shipping patterns observed during the original investigation, the first review, and the second review, subject imports from Japan would likely be concentrated in the state of California if the order were revoked.[68]

In the third and fourth reviews, the Commission found that subject imports from Japan were minimal, and the volume never reached 0.1 percent of apparent consumption nationally or in the state of California.[69] While at least 60 percent of subject imports from Japan were shipped to the state of California in 2006 and 2007, there were no subject imports from 2008 to 2010, and the volume of subject imports from 2011 to 2015 never exceeded 500 tons in any of these years.[70] Since the subject import data for these periods of review were too small and sporadic to indicate any change in shipping patterns observed in the original investigation, the Commission consequently found in both of these reviews that subject imports from Japan would likely be concentrated in the state of California if the order were revoked.[71]

The record indicates that subject imports were minimal during the period of review. In 2021, the volume of subject imports was *** percent of apparent consumption nationally and

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[64] *First Review*, USITC Pub. 3361 at 17-18.

[65] *First Review*, USITC Pub. 3361 at 17-18.

[66] *First Review*, USITC Pub. 3361 at 17-18.

[67] *Second Review*, USITC Pub. 3856 at 12.

[68] *Second Review*, USITC Pub. 3856 at 12. The Commission observed that during the original investigation, the ratio of subject imports from Japan within California to total subject imports from Japan ranged between 67.5 percent and 79.2 percent. *Id.* at 11. The ratio of subject imports from Japan to consumption within California ranged between 3.3 percent and 13.1 percent; the ratio of subject imports from Japan to consumption outside the state of California region was less than 1.0 percent in each year examined in the original investigation. *Id.*

[69] *Third Review*, USITC Pub. 4281 at 10; *Fourth Review*, USITC Pub. 4704 at 13.

[70] *Third Review*, USITC Pub. 4281 at 10; *Fourth Review*, USITC Pub. 4704 at 13.

[71] *Third Review*, USITC Pub. 4281 at 10; *Fourth Review*, USITC Pub. 4704 at 13.

in the state of California.[72] The annual volume of subject imports from Japan into the United States was 1,000 short tons during the 2016 to 2019 period, less than 500 short tons in 2020, and 6,000 short tons in 2021, and the annual volume of subject imports entering the state of California during this time was 1,000 short tons in 2016 and less than 500 short tons annually during the 2017 to 2021 period.[73] Since the volume of subject imports during the period of review has been minimal and sporadic, nothing in the record indicates that any change from the shipping patterns observed during the original investigation would be likely in the event of revocation.[74] Consequently, we find that subject imports would likely be concentrated in the state of California if the order were revoked based on the information available. In light of this, we conclude that it is appropriate to proceed with a regional injury analysis for the state of California region.

2. Related Parties

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.[75] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[76]

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[72] CR/PR at Tables I-11, I-12.

[73] CR/PR at Tables I-9, I-10.

[74] Moreover, the URAA amended the statute to state that when the Commission's affirmative injury determination is based on a regional industry, Commerce shall "to the maximum extent possible, direct that duties be assessed only on the subject merchandise of the specific exporters or producers that exported the subject merchandise for sale in the region concerned during the period of investigation." 19 U.S.C. § 1673e(d)(1). Consequently, current shipment patterns may not be a reliable indicator of likely shipment patterns upon revocation.

[75] *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).

[76] 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);

(Continued…)

In the first, second, and third reviews, the Commission found that California producers Mitsubishi Cement Corp. ("Mitsubishi Cement") and CalPortland were subject to the related parties provision but that appropriate circumstances did not exist to exclude any producer from the regional industry.[77] In the fourth review, the Commission found that Mitsubishi Cement and CalPortland remained owned by Japanese producers, but the record was insufficient to establish whether these companies qualified as related parties or whether appropriate circumstances existed to exclude the company from the definition of the regional industry pursuant to the related parties provision.[78] The Commission, therefore, defined the regional industry to include all producers of cement in the state of California.[79]

The record in the current review indicates that Mitsubishi Cement and CalPortland are owned by Mitsubishi Materials Corp. and Taiheiyo Cement, respectively, which are producers of the subject merchandise in Japan.[80] Because there is no information on the record concerning whether Mitsubishi Materials Corp. and Taiheiyo Cement exported subject merchandise to the United States during the period of review, however, the record is insufficient to establish that Mitsubishi Cement and CalPortland qualify as related parties.[81] In light of this and the lack of any contrary argument, we define the regional industry to include all producers of cement in the state of California.

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(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.*, 790 F. Supp. at 1168.

[77] *First Review*, USITC Pub. 3361 at 22-23; *Second Review*, USITC Pub. 3856 at 13; *Third Review*, USITC Pub. 4281 at 11-12. The original determination did not discuss related party issues.

[78] *Fourth Review*, USITC Pub. 4704 at 14.

[79] *Fourth Review*, USITC Pub. 4704 at 14.

[80] CR/PR at I-34; *Domestic Response* at 50-51.

[81] We note that subject imports from Japan covered by the order were nearly nonexistent for the period of review. CR/PR at Table I-12. Moreover, even if both producers were to qualify as related parties, neither responded to the notice of institution with data on their cement operations that could be excluded from regional industry data. Although CalPortland owns some of the facilities covered by the two unions that responded to the notice of institution, the unions provided the estimated data for these facilities on an aggregated basis in their response, making it impossible to separate and analyze data only for CalPortland. *See Domestic Response Cure Letter* at 1-2.

III. Revocation of the Antidumping Duty Order Would Likely Lead to Continuation or Recurrence of Material Injury Within a Reasonably Foreseeable Time

A. Legal Standards

In a five-year review conducted under section 751(c) of the Tariff Act, Commerce will revoke an antidumping duty order unless: (1) it makes a determination that dumping is likely to continue or recur, and (2) the Commission makes a determination that revocation of the antidumping duty order "would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time."[82] The SAA states that "under the likelihood standard, the Commission will engage in a counterfactual analysis; it must decide the likely impact in the reasonably foreseeable future of an important change in the status quo – the revocation or termination of a proceeding and the elimination of its restraining effects on volumes and prices of imports."[83] Thus, the likelihood standard is prospective in nature.[84] The CIT has found that "likely," as used in the five-year review provisions of the Act, means "probable," and the Commission applies that standard in five-year reviews.[85]

The statute states that "the Commission shall consider that the effects of revocation or termination may not be imminent, but may manifest themselves only over a longer period of time."[86] According to the SAA, a "'reasonably foreseeable time' will vary from case-to-case, but

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[82] 19 U.S.C. § 1675a(a).

[83] SAA at 883-84. The SAA states that "{t}he likelihood of injury standard applies regardless of the nature of the Commission's original determination (material injury, threat of material injury, or material retardation of an industry). Likewise, the standard applies to suspended investigations that were never completed." *Id*. at 883.

[84] While the SAA states that "a separate determination regarding current material injury is not necessary," it indicates that "the Commission may consider relevant factors such as current and likely continued depressed shipment levels and current and likely continued {sic} prices for the domestic like product in the U.S. market in making its determination of the likelihood of continuation or recurrence of material injury if the order is revoked." SAA at 884.

[85] *See NMB Singapore Ltd. v. United States*, 288 F. Supp. 2d 1306, 1352 (Ct. Int'l Trade 2003) ("'likely' means probable within the context of 19 U.S.C. § 1675(c) and 19 U.S.C. § 1675a(a)"), *aff'd mem.*, 140 Fed. Appx. 268 (Fed. Cir. 2005); *Nippon Steel Corp. v. United States*, 26 CIT 1416, 1419 (2002) (same); *Usinor Industeel, S.A. v. United States*, 26 CIT 1402, 1404 nn.3, 6 (2002) ("more likely than not" standard is "consistent with the court's opinion;" "the court has not interpreted 'likely' to imply any particular degree of 'certainty'"); *Indorama Chemicals (Thailand) Ltd. v. United States*, 26 CIT 1059, 1070 (2002) ("standard is based on a likelihood of continuation or recurrence of injury, not a certainty"); *Usinor v. United States*, 26 CIT 767, 794 (2002) ("'likely' is tantamount to 'probable,' not merely 'possible'").

[86] 19 U.S.C. § 1675a(a)(5).

normally will exceed the 'imminent' timeframe applicable in a threat of injury analysis in original investigations."[87]

Although the standard in a five-year review is not the same as the standard applied in an original investigation, it contains some of the same fundamental elements. The statute provides that the Commission is to "consider the likely volume, price effect, and impact of imports of the subject merchandise on the industry if the orders are revoked or the suspended investigation is terminated."[88] It directs the Commission to take into account its prior injury determination, whether any improvement in the state of the industry is related to the order or the suspension agreement under review, whether the industry is vulnerable to material injury if an order is revoked or a suspension agreement is terminated, and any findings by Commerce regarding duty absorption pursuant to 19 U.S.C. § 1675(a)(4).[89] The statute further provides that the presence or absence of any factor that the Commission is required to consider shall not necessarily give decisive guidance with respect to the Commission's determination.[90]

In evaluating the likely volume of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether the likely volume of imports would be significant either in absolute terms or relative to production or consumption in the United States.[91] In doing so, the Commission must consider "all relevant economic factors," including four enumerated factors: (1) any likely increase in production capacity or existing unused production capacity in the exporting country; (2) existing inventories of the subject merchandise, or likely increases in inventories; (3) the existence of barriers to the importation of the subject merchandise into countries other than the United States; and (4) 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.[92]

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[87] SAA at 887. Among the factors that the Commission should consider in this regard are "the fungibility or differentiation within the product in question, the level of substitutability between the imported and domestic products, the channels of distribution used, the methods of contracting (such as spot sales or long-term contracts), and lead times for delivery of goods, as well as other factors that may only manifest themselves in the longer term, such as planned investment and the shifting of production facilities." *Id*.

[88] 19 U.S.C. § 1675a(a)(1).

[89] 19 U.S.C. § 1675a(a)(1). Commerce has not made any duty absorption findings with respect to the order under review. *Commerce I&D Memorandum* at 3.

[90] 19 U.S.C. § 1675a(a)(5). Although the Commission must consider all factors, no one factor is necessarily dispositive. SAA at 886.

[91] 19 U.S.C. § 1675a(a)(2).

[92] 19 U.S.C. § 1675a(a)(2)(A-D).

In evaluating the likely price effects of subject imports if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether there is likely to be significant underselling by the subject imports as compared to the domestic like product and whether the subject imports are likely to enter the United States at prices that otherwise would have a significant depressing or suppressing effect on the price of the domestic like product.[93]

In evaluating the likely impact of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider all relevant economic factors that are likely to have a bearing on the state of the industry in the United States, including but not limited to the following: (1) likely declines in output, sales, market share, profits, productivity, return on investments, and utilization of capacity; (2) likely negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment; and (3) likely negative effects on the existing development and production efforts of the industry, including efforts to develop a derivative or more advanced version of the domestic like product.[94] All relevant economic factors are to be considered within the context of the business cycle and the conditions of competition that are distinctive to the industry. As instructed by the statute, we have considered the extent to which any improvement in the state of the domestic industry is related to the order under review and whether the industry is vulnerable to material injury upon revocation.[95]

No respondent interested party participated in this expedited review. The record, therefore, contains limited new information with respect to the cement industry in Japan. There is also limited information on the cement market in the United States or the California region during the period of review. Accordingly, for our determination, we rely as appropriate on the facts available from the original investigation and prior reviews and the limited new information on the record of this review.

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[93] *See* 19 U.S.C. § 1675a(a)(3). The SAA states that "{c}onsistent with its practice in investigations, in considering the likely price effects of imports in the event of revocation and termination, the Commission may rely on circumstantial, as well as direct, evidence of the adverse effects of unfairly traded imports on domestic prices." SAA at 886.

[94] 19 U.S.C. § 1675a(a)(4).

[95] The SAA states that in assessing whether the domestic industry is vulnerable to injury if the order is revoked, the Commission "considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they may also demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports." SAA at 885.

B. Conditions of Competition and the Business Cycle

In evaluating the likely impact of the subject imports on the domestic industry if an order is revoked, the statute directs the Commission to consider all relevant economic factors "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[96] The following conditions of competition inform our determination.

1. Demand Conditions

Original Investigation and Prior Reviews. In the original investigation and all prior reviews, the Commission found that demand for cement was directly correlated to the demand for concrete, which was tied to construction activity. The demand was cyclical in nature because it was determined by the level of general construction.[97] Since concrete and cement represented a small portion of construction costs, the Commission also found in all the previous reviews that the demand for cement was relatively inelastic.[98]

In the original investigation, apparent consumption of cement in the Southern California region increased irregularly during the period of investigation.[99] In the first review, the Commission found that demand had increased substantially in the state of California during the period of review and demand for cement tended to be seasonal, with peaks in consumption occurring during the summer months.[100] In the second review, the Commission observed that demand had increased overall in the state of California during the period of review because of changes in the California construction market.[101] In the third review, the Commission observed that demand had declined overall in the state of California during the period of review, with sharp declines during the portion of the period that coincided with a negative cycle in

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[96] 19 U.S.C. § 1675a(a)(4).

[97] *Original Determination*, USITC Pub. 2376 at 28; *First Review*, USITC Pub. 3361 at 32; *Second Review*, USITC Pub. 3856 at 19-20; *Third Review*, USITC Pub. 4281 at 16; *Fourth Review*, USITC Pub. 4704 at 18-19.

[98] *Original Determination*, USITC Pub. 2376 at 28, 41-42; *First Review*, USITC Pub. 3361 at 32; *Second Review*, USITC Pub. 3856 at 19-20; *Third Review*, USITC Pub. 4281 at 16; *Fourth Review*, USITC Pub. 4704 at 18-19.

[99] *Original Determination*, USITC Pub. 2376 at 24.

[100] *First Review*, USITC Pub. 3361 at 32.

[101] *Second Review*, USITC Pub. 3856 at 19-20. The Commission noted specifically that demand for cement increased as construction activity increased as a result of the growth in population and the state's economy, low interest rates, and significantly improved government fiscal conditions that supported increased public works projects such as major highways. *Id.*

construction demand due to the recession.[102] In the fourth review, the Commission observed that apparent consumption in the state of California increased overall, but demand remained below pre-recession levels.[103]

Current Review. In this review, there is no new information indicating that the factors influencing demand have changed since the prior proceedings. Domestic Interested Parties argue that there have been no significant changes in end uses and applications or the existence and availability of substitute products since 2016.[104] Thus, demand for cement continues to be driven by demand for its downstream uses in the construction industry, and demand for cement remains cyclical as it rises and falls with construction activity.[105]

Domestic Interested Parties do not foresee significant growth in demand for cement in the reasonably foreseeable future.[106] On the other hand, responding purchaser *** anticipates ***.[107]

Apparent consumption of cement in the state of California was *** short tons in 2021, as compared to *** short tons in 2015, *** short tons in 2010, *** short tons in 2005, *** short tons in 1999, and *** short tons in 1990.[108]

2. Supply Conditions

Original Investigation and Prior Reviews. In the original investigation, the Commission found that production of cement in the Southern California region increased overall during the period of investigation while production capacity decreased.[109]

In the first review, the Commission found that increases in regional production capacity had not kept pace with increases in demand during the period of review.[110] The constraints in production capacity resulted in substantial and increasing volumes of imports from both subject and nonsubject sources to meet regional market demand, and the regional industry's share of

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[102] *Third Review*, USITC Pub. 4281 at 16-17.
[103] *Fourth Review*, USITC Pub. 4704 at 19.
[104] *Domestic Response* at 53.
[105] *See* CR/PR at I-12; *Domestic Response* at 10-11.
[106] *Domestic Response* at 53.
[107] CR/PR at D-3.
[108] CR/PR at Table I-12. We recognize that apparent consumption in the state of California may be overstated as the pertinent HTS statistical reporting numbers may contain products outside the scope of this review.
[109] *Original Determination*, USITC Pub. 2376 at 24.
[110] *First Review*, USITC Pub. 3361 at 33-34.

the California market decreased as a result.[111] However, the Commission acknowledged that a substantial amount of new production capacity was to come on line in the state of California within two years.[112]

In the second review, the Commission observed that subject imports from Japan were nearly non-existent, but the quantity of nonsubject imports increased by 51.2 percent from 2001 to 2005.[113]

In the third review, the Commission found that capacity of the regional industry, which consisted of ten facilities operated by six firms, remained relatively stable.[114] It also observed that from 2006 to 2009, the regional industry accounted for an increasing majority of the market share in California and that nonsubject imports supplied nearly the entire remaining share, while subject imports accounted for less than 0.05 percent of the market share in the region.[115]

In the fourth review, the Commission found that the regional industry accounted for almost all of the apparent regional consumption in 2015, while subject imports accounted for a fraction of the remainder.[116] The Commission found that the regional industry was composed of ten plants owned by six different firms.[117] Additionally, the Commission observed that overall production for cement and cement grinding capacity in the region declined slightly from 2011 to 2013 while cement clinker production capacity remained relatively stable.[118]

Current Review. During the period of review, the cement market in the state of California was supplied primarily by domestic producers and nonsubject imports.

The domestic industry was the largest source of supply in the Californian market in 2021, accounting for *** percent of apparent regional consumption that year.[119] The information available indicates that there were several changes to the regional industry during the period of review, including acquisitions, capacity updates and expansions, and regulatory

[111] *First Review*, USITC Pub. 3361 at 33-34.
[112] *First Review*, USITC Pub. 3361 at 33-34.
[113] *Second Review*, USITC Pub. 3856 at 20-21.
[114] *Third Review*, USITC Pub. 4281 at 17.
[115] *Third Review*, USITC Pub. 4281 at 17.
[116] *Fourth Review*, USITC Pub. 4704 at 20.
[117] *Fourth Review*, USITC Pub. 4704 at 20.
[118] *Fourth Review*, USITC Pub. 4704 at 20.
[119] CR/PR at Table I-12.

changes.[120] Domestic Interested Parties observe that some cement producers have recently started to produce or announced plans to produce portland-limestone cement to comply with California emissions regulations.[121] Both responding purchasers reported ***, and responding purchaser *** anticipates that ***.[122]

There were less than 500 short tons of subject imports in the Californian cement market in 2021.[123] Domestic Interested Parties contend that cement demand in Japan is declining, and that Japanese producers are shifting domestic sales to export markets while increasing their capacity.[124]

Nonsubject imports were the second largest source of supply in 2021, accounting for *** percent of apparent California consumption.[125] The largest sources of nonsubject imports into the Californian market in 2021 were South Korea, Vietnam, Mexico, and China.[126]

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[120] Effective January 1, 2022, California passed an act requiring state cement producers to comply with a comprehensive strategy to reduce greenhouse gas emissions. CR/PR at Table I-6.

CalPortland, a subsidiary of Taiheiyo Cement Corp. of Japan, completed its acquisition of a cement facility in Oro Grande, California in 2015 and updated the equipment at this facility, which expanded production capacity by 64 percent, in 2019. *Id.* CalPortland also awarded a contract to upgrade its cement facility in Mojave, California, which was anticipated to become operational by late 2021, and announced its completion of the shift to portland-limestone cement production at this facility in 2022 to comply with the Portland Cement Association's Roadmap to Carbon Neutrality in order to reduce carbon emissions. *Id.* Additionally, CalPortland completed its acquisition of a cement facility in Redding, California from Martin Marietta in 2022. *Id.*

The Santa Clara County Board of Supervisors voted to approve purchasing and shutting down a cement facility belonging to Lehigh Hanson, Inc. ("Lehigh Hanson"), a subsidiary of HeidelbergCement Group of Germany, in 2022, which had been nonoperational since 2019, due to environmental protection violations. *Id.*

Martin Marietta ceased producing gray portland cement at its facility in Crestmore, California due to the sale of its Oro Grande facility to CalPortland in 2015 but continued to produce white portland cement at this facility. *Id.* Martin Marietta also completed its acquisition of two cement facilities in Monolith and Redding, California from Lehigh Hanson in 2021. *Id.*

[121] *Domestic Response* at 52. Domestic Interested Parties claim that California cement producers are vulnerable as a result of additional costs imposed by regulations implementing AB 32. AB 32 authorizes the California Air Resources Board ("CARB") to adopt regulations to reduce greenhouse gas emissions to 1990 levels by 2020. They assert that due to the operation of AB 32 as it applies to the cement sector, California producers are currently exposed to highly transparent additional costs for the production of each ton of cement, these costs increase every year, and the costs will increase by a higher percentage each year during 2021 to 2031 than during 2013 to 2020. *Id.* at 35-36.

[122] CR/PR at D-3.

[123] CR/PR at Table I-12.

[124] *Domestic Response* at 52-53.

[125] CR/PR at Table I-12.

[126] CR/PR at Table I-10.

3. Substitutability and Other Conditions

Original Investigation and Prior Reviews. In the original investigation and prior reviews, the Commission found that cement was a fungible commodity product that was readily interchangeable regardless of the country of origin, price was an important purchasing factor, and the U.S. market for cement was regional in nature based on the relatively high inland transportation costs due to cement's low value-to-weight ratio, which limited the distances to which it was shipped.[127] In all of the previous reviews, the Commission found that the cement industry was highly capital intensive and producers operated at a high capacity utilization to maximize return on investments.[128] The Commission also found that a substantial portion of regional cement production was owned by large international corporations, and there was a significant degree of vertical integration between regional cement producers and the downstream ready-mixed concrete operations.[129] In the third and fourth reviews, the Commission found that cement production is energy-intensive, with major sources of energy used in production including coal, fuel oil, and natural gas and requiring large amounts of electricity and fuel.[130]

Current Review. The record in this review contains no new information to indicate that the degree of substitutability between the domestic like product and subject imports or the importance of price in purchasing decisions has changed since the prior reviews. Domestic Interested Parties claim that there has been no significant change in the level of competition among domestic, subject, and nonsubject cement since 2016 and that price continues to be an important factor in the market cement.[131] Accordingly, we find, as we did in the prior reviews, that there is a high degree of substitutability between the domestic like product and subject imports and that price remains an important factor in purchasing decisions.

The information available on the record indicates that many of the conditions of competition prevailing in the prior reviews continued to prevail during the current period of

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[127] *Original Determination*, USITC Pub. 2376 at 16-17; *First Review*, USITC Pub. 3361 at 32; *Second Review*, USITC Pub. 3856 at 19-20; *Third Review*, USITC Pub. 4281 at 16-17; *Fourth Review*, USITC Pub. 4704 at 20-21.

[128] *First Review*, USITC Pub. 3361 at 34; *Second Review*, USITC Pub. 3856 at 20; *Third Review*, USITC Pub. 4281 at 17; *Fourth Review*, USITC Pub. 4704 at 21.

[129] *First Review*, USITC Pub. 3361 at 33; *Second Review*, USITC Pub. 3856 at 20; *Third Review*, USITC Pub. 4281 at 17; *Fourth Review*, USITC Pub. 4704 at 21.

[130] *Third Review*, USITC Pub. 4281 at 17; *Fourth Review*, USITC Pub. 4704 at 21.

[131] *Domestic Response* at 6-12, 53.

review. The cement industry remains highly capital intensive.[132] Due to the high fixed costs of cement production, cement producers in both California and Japan must operate at high levels of capacity utilization to lower their unit fixed costs and maintain profitability.[133] Furthermore, cement production remains highly energy intensive, and Domestic Interested Parties state that energy prices were volatile during the period of review.[134] Finally, due to the low value-to-weight ratio and high transportation costs of cement, cement markets remain regional.[135]

C. Likely Volume of Subject Imports

1. The Original Investigation and Prior Five-Year Reviews

In the remand determination of the original determination, which was made on a non-cumulated basis, the volume of subject imports from Japan into the Southern California region increased from 349,000 short tons in 1986 to 1.7 million short tons in 1989.[136] The Commission found on remand that the volume of subject imports from Japan was significant.[137]

In the first review, the Commission found that subject imports from Japan were likely to be significant within a reasonably foreseeable time if the antidumping duty order were revoked.[138] The Commission observed that subject imports from Japan entering the state of California virtually ceased since the original investigation.[139] Furthermore, the Commission found that subject producers in Japan had excess production capacity and an established customer base and distribution system in the California market.[140]

The Commission found that subject imports from Japan were non-existent in the second review and very minimal in the third and fourth reviews.[141] Based on the available information in those reviews, the Commission found that the revocation of the antidumping duty order

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[132] *Domestic Response* at 7-8.
[133] *Domestic Response* at 7-8.
[134] CR/PR at I-15-16; *Domestic Response* at 8-9.
[135] *Domestic Response* at 9-10.
[136] *Remand Determination*, USITC Pub. 2657 at 11.
[137] *Remand Determination*, USITC Pub. 2657 at 11.
[138] *First Review*, USITC Pub. 3361 at 43-44.
[139] *First Review*, USITC Pub. 3361 at 43-44.
[140] *First Review*, USITC Pub. 3361 at 43-44.
[141] *Second Review*, USITC Pub. 3856 at 21 (describing the volume as "virtually non-existent"); *Third Review*, USITC Pub. 4281 at 19 (describing the volume as "minimal"); *Fourth Review*, USITC Pub. 4704 at 22 (describing the volume as "minimal").

would likely result in significant subject import volumes in the state of California.[142] In those reviews, the Commission observed that the cement industry in Japan had the ability to export significant volumes to the United States based on the combination of substantial excess capacity and a production process that created an incentive to achieve full capacity utilization.[143] The Commission also found that subject producers would have an incentive to direct additional exports to California in light of the increasing competition they were facing in third-country export markets from cement from China and India.[144] In the third and fourth reviews, the Commission further noted that, based on available information, the industry in Japan faced a pattern of declining home-market shipments and a likely lack of growth in existing export markets.[145]

In each of the prior reviews, the Commission acknowledged that the subject producers' ownership or control of cement production facilities in California could restrain somewhat the quantity of subject imports.[146] It found, however, that imports were likely to increase significantly because imports increased during the original investigation period notwithstanding that the subject producers owned substantial regional production facilities at that time.[147] Moreover, the customer base and distribution of the subject producers' subsidiaries in California would permit the subject producers to increase sales of subject merchandise quickly upon revocation.[148]

2. The Current Review

The record in this review indicates that subject imports were minimal in the California market during the period of review, with subject imports of 1,000 short tons in 2016, but less than 500 short tons during the 2017 to 2021 period.[149]

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[142] *Second Review*, USITC Pub. 3856 at 21; *Third Review*, USITC Pub. 4281 at 19-20; *Fourth Review*, USITC Pub. 4704 at 23.

[143] *Second Review*, USITC Pub. 3856 at 21; *Third Review*, USITC Pub. 4281 at 19-20; *Fourth Review*, USITC Pub. 4704 at 23.

[144] *Second Review*, USITC Pub. 3856 at 21; *Third Review*, USITC Pub. 4281 at 19-20; *Fourth Review*, USITC Pub. 4704 at 23.

[145] *Third Review*, USITC Pub. 4281 at 19-20; *Fourth Review*, USITC Pub. 4704 at 23.

[146] *First Review*, USITC Pub. 3361 at 43-44; *Second Review*, USITC Pub. 3856 at 21-22; *Third Review*, USITC Pub. 4281 at 20; *Fourth Review*, USITC Pub. 4704 at 24.

[147] *First Review*, USITC Pub. 3361 at 43-44; *Second Review*, USITC Pub. 3856 at 21-22; *Third Review*, USITC Pub. 4281 at 20; *Fourth Review*, USITC Pub. 4704 at 24.

[148] *First Review*, USITC Pub. 3361 at 43-44; *Second Review*, USITC Pub. 3856 at 21-22; *Third Review*, USITC Pub. 4281 at 20; *Fourth Review*, USITC Pub. 4704 at 24.

[149] CR/PR at Table I-10.

The record in this expedited review contains limited information on the cement industry in Japan. The information available indicates that subject producers continue to have the ability to produce and export substantial volumes of subject merchandise and have the means to increase their exports of subject merchandise to the California market to significant levels if the order were revoked. Domestic Interested Parties identified 17 possible producers of cement in Japan[150] and contend that the subject industry continues to have considerable capacity and is increasingly dependent on exports.[151]

The information available indicates that there were 19 cement producers in Japan producing cement at 31 integrated facilities during the 2010 to 2020 period.[152] Changes to the Japanese industry during the period of review included a $21 million investment by Sumitomo Osaka Cement Co. to double the capacity of one of its cement production facilities and the integration of the cement operations of Mitsubishi Materials Corp. and Ube Industries, Inc. into an equally owned joint venture in April 2022.[153] According to the U.S. Geological Survey, Japan produced 61.0 million short tons of hydraulic cement, including in-scope cement and out-of-scope products, in 2018, making it the world's tenth largest producer of hydraulic cement that year.[154] Although the Japan Cement Association ("JCA") reported that Japanese cement production declined irregularly during the 2016 to 2020 period, Japanese exports of cement declined only slightly and remained approximately three times higher than Japanese imports of cement during this period.[155] The JCA also reported that the Japanese cement industry operated at just under 90 percent capacity utilization in 2020, which would have yielded excess capacity of approximately 6.0 million short tons in 2021 according to Domestic Interested Parties.[156] Global Trade Atlas ("GTA") data concerning exports of cement, including in-scope cement and out-of-scope products, show that Japan exported 12.6 million short tons of such merchandise in 2021 and that Japan was the world's fourth largest exporter of such merchandise in 2020.[157] Thus, the information on the record of this review indicates that the Japanese cement industry is large and with a demonstrated ability to export substantial volumes of cement.

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[150] CR/PR at I-43; *Domestic Response* at Exhibit 1.
[151] *Domestic Response* at 38-46.
[152] CR/PR at I-47 (based on information from Cement Net).
[153] CR/PR at I-47, Table I-14.
[154] CR/PR at Table I-13.
[155] CR/PR at I-44, Figure I-3.
[156] CR/PR at I-45-46.
[157] CR/PR at Tables I-15, I-18.

Although there were minimal subject imports in the California market after 2016, several factors would make the U.S. market attractive to Japanese producers in the event of revocation of the order. First, due to the capital-intensive nature of cement production, Japanese producers have an economic incentive to increase their exports to the United States after revocation to boost their rate of capacity utilization, lower their unit fixed costs, and enhance their profitability, particularly in light of historically weak home market demand for cement.[158] Second, the Philippines, which was the fourth largest export destination for cement exported from Japan in 2018, imposed a safeguard measure on imports of cement originating in certain subject countries (including Japan) in 2019 that reduced Japanese exports to the Philippines by 17.1 percent from 2019 to 2021, making the U.S. market relatively more attractive to Japanese producers.[159] Third, Japanese exports of cement to third country markets in Asia face competition from large regional cement industries in China and India, which possess excess capacity, and Vietnam, which exports nearly half of its production.[160] Japanese producers are also disadvantaged in the markets of Asian countries belonging to the Association of Southeast Asian Nations ("ASEAN"), which grant preferential tariff rates on imports of cement from each other while imposing higher tariffs on cement imported from non-member countries like Japan.[161] For all of these reasons, subject producers in Japan will likely have an incentive to increase exports to the United States upon revocation.

We recognize that two of the producers in California are owned by producers of subject merchandise in Japan.[162] As we have found in prior reviews, while these relationships may constrain the volume of subject imports from Japan to a degree if the order is revoked, the volume of subject imports is nevertheless likely to increase significantly.[163] Indeed, substantial ownership of California production facilities did not prevent Japanese subject producers from exporting significant volume of subject merchandise to the region during the original investigation. Moreover, the established customer base and distribution system maintained by

[158] *Domestic Response* at 6, 39, 43; CR/PR at Figure I-3.

[159] CR/PR at I-49-50, Table I-15.

[160] CR/PR at I-51-52; *see also Domestic Response* at 40-41.

[161] *Domestic Response* at 41, Exhibit 19.

[162] CR/PR at I-34; *Domestic Response* at 50-51. Domestic Interested Parties identify a total of six producers in the state of California. *Domestic Response* at Exhibit 1.

[163] *First Review*, USITC Pub. 3361 at 43-44; *Second Review*, USITC Pub. 3856 at 21-22; *Third Review*, USITC Pub. 4281 at 20; *Fourth Review*, USITC Pub. 4704 at 24.

subsidiaries of subject producers (Mitsubishi Cement and CalPortland) would enable them to increase sales of subject merchandise in the region quickly if the order were revoked.[164]

Given the significant volume of subject imports during the original investigation, the Japanese industry's substantial capacity, excess capacity, and substantial volume of global exports of cement, and the relative attractiveness of the U.S. market to subject producers due to third-country trade restrictions, non-preferential duty rates in the Asian region, and the existing customer base and distribution network of the subject producers' subsidiaries in California, we find that the volume of subject imports would likely be significant, both in absolute terms and relative to consumption in California, if the order were revoked.[165]

D. Likely Price Effects

1. The Original Investigation and Prior Five-Year Reviews

In the original investigation, the Commission found that cumulated subject imports had significant price effects on the Southern California regional industry.[166] It found that, given their predominant underselling and increasing volume, the high substitutability of cement, and inelastic demand, subject imports from Japan had a "suppressing and depressing effect on prices for cement in Southern California."[167]

In the first review, the Commission found that revocation of the antidumping duty order on cement would likely lead to significant underselling by subject imports of the domestic like product in California, as well as significant price depression and suppression, within a reasonably foreseeable time.[168] It emphasized that in the original investigation, subject imports from Japan consistently undersold the domestic like product during the period of investigation.[169] Noting that the record did not contain pricing information for the period of

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[164] Domestic Interested Parties note that in March 2022, CalPortland, a subsidiary of a subject producer, entered into an agreement to purchase certain cement and concrete assets from Martin Marietta, a domestic producer, in Redding, California and have entered into preferred arrangement regarding the potential sale of Martin Marietta's cement plant in Tehachapi, California. *Domestic Response* at 51.

[165] The record does not contain data addressing existing inventories of the subject merchandise or the potential for product shifting.

[166] *Remand Determination*, USITC Pub. 2657 at 12-13, 27-29.

[167] *Remand Determination*, USITC Pub. 2657 at 12-13, 27-29.

[168] *First Review*, USITC Pub. 3361 at 45.

[169] *First Review*, USITC Pub. 3361 at 45. The Commission noted that during the original investigation, subject imports from Japan predominantly undersold the domestic product in the Los (Continued…)

review, the Commission found that subject imports and the domestic like product were highly substitutable and that price was an important factor in purchasing decisions.[170] It determined that the subject imports would likely be aggressively priced in order to gain market share.[171] Conversely, it found that "the regional industry's capacity expansion projects and the resultant increase in supply" would likely increase price sensitivity in the market.[172]

In the second, third, and fourth reviews, the Commission found that, based on the facts available, subject imports would likely significantly undersell the domestic like product should the antidumping duty order be revoked.[173] It explained that subject producers would have the incentive to cut prices to capture market share.[174] Overall, because cement from different sources was fungible and lower prices would not serve to stimulate significant additional demand, the Commission concluded that the likely underselling by subject imports would likely have the effect of significantly depressing or suppressing prices in the regional market.[175]

2. The Current Review

As discussed above, we continue to find a high degree of substitutability between the domestic like product and subject imports and that price remains an important factor in purchasing decisions.

The record in this expedited review does not contain new product-specific pricing information. Based on the available information, including the high degree of substitutability between the domestic like product and subject imports, the importance of price in purchasing decisions, and the likely attractiveness of the U.S. market to subject producers for the several reasons detailed above, we find that, if the order were revoked, significant volumes of subject imports would likely undersell the domestic like product, as they did in the original investigation. Absent the discipline of the order, the significant volume of low-priced subject

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Angeles, California market (60 of 60 months); the Orange County, California market (57 of 60 months); the Riverside County, California market (59 of 59 months); and the San Diego, California market (12 of 12 months). *Id.* at 44, n.272.

[170] *First Review*, USITC Pub. 3361 at 45.

[171] *First Review*, USITC Pub. 3361 at 45.

[172] *First Review*, USITC Pub. 3361 at 45.

[173] *Second Review*, USITC Pub. 3856 at 23; *Third Review*, USITC Pub. 4281 at 21; *Fourth Review*, USITC Pub. 4704 at 25.

[174] *Second Review*, USITC Pub. 3856 at 23; *Third Review*, USITC Pub. 4281 at 21; *Fourth Review*, USITC Pub. 4704 at 25.

[175] *Second Review*, USITC Pub. 3856 at 23; *Third Review*, USITC Pub. 4281 at 21; *Fourth Review*, USITC Pub. 4704 at 25.

imports would likely take sales and market share from domestic producers and/or force the domestic industry to cut prices or restrain price increases necessary to cover increasing costs, thereby depressing and/or suppressing prices for the domestic like product. For these reasons, we find that if the order were revoked, significant volumes of subject imports would likely have significant price effects.

E. Likely Impact

1. The Original Investigation and Prior Five-Year Reviews

In the original investigation, the Commission found material injury by reason of subject imports primarily through the effects on the regional industry's financial condition due to the volume of subject imports, their increasing market penetration, and their effect on prices.[176] The Commission specifically noted the effects of the dumped imports on the financial condition of the regional industry and emphasized that it examined information pertaining to the individual producers in the region.[177]

The Commission in the first review found that subject imports from Japan would likely have a significant impact on the regional industry.[178] In so doing, the Commission found that the imposition of the order appeared to have had a beneficial effect on the regional industry because the regional industry's production and operating margins had improved.[179] Although the Commission found that the industry was not in a vulnerable state, it observed that demand in California was projected to increase at a slower rate or remain flat and that California producers were undertaking or had announced plans to expand capacity.[180] Thus, given the likely significant volume and price effects if the order were revoked, the Commission found that subject imports would likely have a significant impact on the regional industry.[181]

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[176] *Original Determination*, USITC Pub. 2376 at 43-44; *Remand Determination*, USITC Pub. 2657 at 7-14.

[177] *Original Determination*, USITC Pub. 2376 at 43-44; *Remand Determination*, USITC Pub. 2657 at 7-14. The Commission found that although the regional producers' operating margins increased during parts of the period of investigation, it was largely due to declines in costs and increases in sales volumes. *Id.* Overall, the total operating income declined during the period of investigation primarily as a result of a drop in net sales revenue. *Id.* The Commission also found that the adverse effects on the financial condition were reflected in the regional producers' inability to invest. *Id.*

[178] *First Review*, USITC Pub. 3361 at 45-47.

[179] *First Review*, USITC Pub. 3361 at 45-47.

[180] *First Review*, USITC Pub. 3361 at 45-47.

[181] *First Review*, USITC Pub. 3361 at 45-47.

The Commission's analysis in the expedited second, third, and fourth five-year reviews of the likely impact of subject imports followed from its prior findings that revocation would likely result in significant additional volumes of subject imports that would likely undersell the domestic like product and would likely have the effect of significantly depressing or suppressing prices in the regional market.[182] It found that the additional subject imports would cause the regional industry to lose market shares, and reduced output and capacity utilization would be particularly harmful to the capital-intensive cement industry.[183] The industry's production, shipments, sales, and revenues would likely be adversely affected, leading to declines in profitability and employment.[184]

The Commission in all prior reviews also examined the performance of the individual producers in the region to ascertain that the statutory "all or almost all" standard was satisfied.[185] It found that while a substantial proportion of the industry was owned or controlled by the subject producers, "the interests of the Japanese operations would likely not be secondary to those of their comparatively small California subsidiaries."[186] In the second, third, and fourth reviews, the Commission also found that even if a subject producer could attempt to direct its imports in a manner to shield a California affiliate's operations, that affiliate would still be adversely affected by imports from other subject producers.[187] Accordingly, the Commission concluded that revocation of the antidumping duty order would likely result in a significant impact to the regional industry.[188]

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[182] *Second Review*, USITC Pub. 3856 at 25; *Third Review*, USITC Pub. 4281 at 25; *Fourth Review*, USITC Pub. 4704 at 28.

[183] *Second Review*, USITC Pub. 3856 at 25; *Third Review*, USITC Pub. 4281 at 25; *Fourth Review*, USITC Pub. 4704 at 27-28.

[184] *Second Review*, USITC Pub. 3856 at 25; *Third Review*, USITC Pub. 4281 at 25; *Fourth Review*, USITC Pub. 4704 at 27-28. The Commission found in each of these reviews that there was insufficient information in the record to permit it to reach a determination of whether the regional industry was vulnerable. *Second Review*, USITC Pub. 3856 at 24-25; *Third Review*, USITC Pub. 4281 at 24; *Fourth Review*, USITC Pub. 4704 at 26.

[185] *First Review*, USITC Pub. 3361 at 46; *Second Review*, USITC Pub. 3856 at 25; *Third Review*, USITC Pub. 4281 at 25; *Fourth Review*, USITC Pub. 4704 at 27-28.

[186] *First Review*, USITC Pub. 3361 at 46; *Second Review*, USITC Pub. 3856 at 25; *Third Review*, USITC Pub. 4281 at 25; *Fourth Review*, USITC Pub. 4704 at 27-28.

[187] *Second Review*, USITC Pub. 3856 at 25; *Third Review*, USITC Pub. 4281 at 25; *Fourth Review*, USITC Pub. 4704 at 27-28.

[188] *First Review*, USITC Pub. 3361 at 46; *Second Review*, USITC Pub. 3856 at 25; *Third Review*, USITC Pub. 4281 at 25; *Fourth Review*, USITC Pub. 4704 at 27-28.

2. The Current Review

The record in this expedited review contains limited information concerning the regional industry's performance since the last review.

The information available indicates that the regional industry's performance was mixed in 2021 as compared to its performance in the final years examined in the original investigation and prior reviews. Capacity utilization was similar to other periods. In 2021, the regional industry's capacity was *** short tons, production was *** short tons, and capacity utilization was *** percent.[189] The regional industry's market share was lower in 2021 compared to prior periods, with the exception of 2005. Its U.S. shipments were *** short tons in 2021, equivalent to *** percent of apparent U.S. consumption that year.[190] Finally, the regional industry's net sales value, operating income, and operating income as a share of net sales were higher in 2021 than in prior periods. The regional industry's net sales were $***, its operating income was $***, and its ratio of operating income to net sales was *** percent in 2021.[191] This limited information is insufficient for us to make a finding as to whether the regional industry is vulnerable to the continuation or recurrence of material injury in the event of revocation of the order.

Based on the information available on the record, we find that revocation of the order would likely result in a significant increase in subject import volume that would likely undersell the domestic like product, causing the regional industry to lose sales and market share and/or significantly depressing or suppressing prices for the domestic like product. The likely significant volume of low-priced subject imports and their adverse price effects would likely have a significant adverse impact on the production, shipments, sales, market share, and

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[189] CR/PR at Table I-8. By comparison, the regional industry's capacity utilization rate was *** percent in 2015, *** percent in 2010, *** percent in 2005, *** percent in 1999, and *** percent in 1990. *Id.* The regional industry's capacity utilization rate was *** percent in 2015, *** percent in 2010, *** percent in 2005, and *** percent in 1990. *Id.* Gray portland cement and cement clinker were combined in 2021 data on capacity, production, and U.S. shipments provided by the domestic industry and, thus, are not comparable to prior years when data on gray portland cement and cement clinker were provided separately. *Id.*

[190] CR/PR at Tables I-8, I-12. The regional industry's share of the U.S. market was *** percent in 2015, *** percent in 2010, *** percent in 2005, *** percent in 1999, and *** percent in 1990. CR/PR at Table I-12.

[191] CR/PR at Table I-8. The regional industry's net sales were $*** in 2015, $*** in 2010, $*** in 1999, and $*** in 1990; operating income was $*** in 2015, *** in 2010, $*** in 1999; and $*** in 1990. *Id.* The operating income to net sales ratio was *** percent in 2015, *** percent in 2010, *** percent in 1999, and *** percent in 1990. *Id.*

revenues of the regional industry, which, in turn, would have a direct adverse impact on the industry's profitability and employment, as well as its ability to raise capital and make and maintain necessary capital investments. In light of the capital-intensive nature of the industry, decreases in capacity utilization would be particularly harmful as cement producers seek to maximize capacity utilization to offset fixed costs and to justify capital expenditures. Consequently, we conclude that, if the order were revoked, subject imports would be likely to have an adverse impact on the regional industry within a reasonably foreseeable time.[192]

While we have analyzed the statutory factors regarding the aggregate data for the regional industry, we have also examined the performance of individual regional producers to look for anomalies as a safeguard to assure that the "all or almost all" standard applicable to proceedings involving a regional industry was met.[193] We examined the producer-specific information for 2021 submitted by the individual members of the Committee. While these data indicate that the two individual producers had varied financial performance in 2021, based on the information available, we do not find anomalies in the likely performance among the responding producers for purposes of applying the "all or almost all" standard.[194]

We have also considered that subject producers from Japan own or control cement producers in California that are not members of the Committee.[195] While this common ownership and control may constrain to some extent the volume of subject imports upon revocation,[196] the volume of subject imports is nevertheless likely to increase significantly in the event of revocation. As discussed above, the Japanese industry's substantial capacity including excess capacity, exports of cement, and the relative attractiveness of the U.S. market to subject producers, together with the industry's desire to increase its capacity utilization to offset high fixed costs, would provide an incentive for the Japanese producers to increase shipments to the California region if the order were revoked. Indeed, during the original investigation, without the discipline of the order, the interests of the Japanese ownership of California facilities did

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[192] In its expedited reviews of the antidumping duty order, Commerce determined that revocation of the order would result in the continuation or recurrence of dumping, with margins ranging up to 69.89 percent. *Gray Portland Cement and Cement Clinker from Japan: Final Results of Expedited Sunset Review of the Antidumping Duty Order*, 87 Fed. Reg. 60121 (Oct. 4, 2022).

[193] Pursuant to 19 U.S.C. § 1677(4)(C), when the Commission defines a regional industry, material injury to an industry may be found "if the producers of all, or almost all, of the production within that market" suffer material injury due to the dumped imports. *See also Cemex*, 790 F. Supp. at 290, 296.

[194] CR/PR at App. B, Tables B-2, B-4.

[195] Section II.B.2.

[196] *See* Section III.C.2.

not prevent Japanese producers from shipping significant quantities of cement at low prices to the California region. The likely significant volume of subject imports in the event of revocation would likely engage in significant underselling causing adverse price effects for the regional industry, as discussed above. Moreover, even if an individual subject producer attempted to direct its imports to shield its regional affiliate's production, these affiliates comprise a minority of the regional industry, and other regional industry producers would be susceptible to lose sales and market share due to these individual subject producers' low-priced subject imports. Moreover, the regional affiliates likely would still be adversely affected by imports from other subject producers in light of the fungible nature of cement.[197] Even subject producers' regional affiliates would likely feel the impact of low-priced subject imports that had the effect of depressing or suppressing prices in the regional industry.

We have also considered the role of factors other than subject imports, including the presence of nonsubject imports. Nonsubject imports increased their presence in the regional market since the last review, accounting for *** percent of apparent California consumption in 2021, as compared to *** percent in 2015.[198] Nevertheless, the record provides no indication that the presence of nonsubject imports would prevent subject imports from entering the regional market in significant quantities, adversely affecting the domestic industry's prices, and/or taking market share from the industry and nonsubject imports after revocation of the order. We also note that the regional industry was able to improve its performance by many measures from 2016 to 2021 despite the increased presence of nonsubject imports in the California market over the period.[199] Consequently, we find that any effects of nonsubject imports would not preclude the likely effects on the regional industry attributable to subject imports.

We recognize that California's apparent consumption of cement was far lower in 2021, at *** short tons, than in 2015, at *** short tons.[200] Nevertheless, neither Domestic Interested Parties nor the responding purchasers reported any decline in demand for cement during the period of review or anticipated decline in demand for cement, and U.S. Geological Survey ("USGS") data submitted by Domestic Interested Parties indicate that California cement

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[197] Domestic Interested Parties identified six cement producers in the state of California. *Domestic Response* at Exhibit 1. As previously discussed, two of those producers (Mitsubishi Cement and CalPortland) are subsidiaries of Japanese producers, while the other four regional producers do not have a relationship with a subject producer (Cemex, Lehigh Hanson, Martin Marietta, and National). *Id.*

[198] CR/PR at Table I-12.

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

[200] CR/PR at Table I-12.

consumption increased irregularly from 2015 to 2021.[201] Moreover, any decline in demand for cement would be unlikely to fully explain any decline in prices upon revocation of the orders or explain any loss in market share.[202] Consequently, we find that any impact of demand trends would not preclude the adverse effects on the regional industry attributable to subject imports in the event of revocation of the order.

Accordingly, we conclude that if the antidumping duty order on cement from Japan were revoked, subject imports would likely have a significant impact on the regional industry within a reasonably foreseeable time.

IV. Conclusion

For the foregoing reasons, we determine that revocation of the antidumping duty order on cement from Japan would be likely to lead to continuation or recurrence of material injury to the state of California industry within a reasonably foreseeable time.

[201] See CR/PR at CR/PR at D-3; *Domestic Response* at Exhibit 8.
[202] CR/PR at Table I-8.

Information obtained in this review

Background

On June 1, 2022, the U.S. International Trade Commission ("Commission") gave notice, pursuant to section 751(c) of the Tariff Act of 1930, as amended ("the Act"),[1] that it had instituted a review to determine whether revocation of the antidumping order on gray portland cement and cement clinker from Japan would likely lead to the continuation or recurrence of material injury.[2] All interested parties were requested to respond to this notice by submitting certain information requested by the Commission.[3] [4] Table I-1 presents information relating to the background and schedule of this proceeding:

Table I-1
Gray portland cement and cement clinker: Information relating to the background and schedule of this proceeding

Effective date	Action
June 1, 2022	Notice of initiation by Commerce (87 FR 33123, June 1, 2022)
June 1, 2022	Notice of institution by Commission (87 FR 33210, June 1, 2022)
September 6, 2022	Commission's vote on adequacy
October 4, 2022	Commerce's results of its expedited review (87 FR 60121, October 4, 2022)
January 26, 2023	Commission's determination and views

[1] 19 U.S.C. 1675(c).

[2] 87 FR 33210, June 1, 2022. In accordance with section 751(c) of the Act, the U.S. Department of Commerce ("Commerce") published a notice of initiation of a five-year review of the subject antidumping duty order. 87 FR 33123, June 1, 2022. Pertinent Federal Register notices are referenced in app. A, and may be found at the Commission's website (www.usitc.gov).

[3] As part of their response to the notice of institution, interested parties were requested to provide company-specific information. That information is presented in app. B. Pertinent summary data compiled in the full first five-year review are presented in app. C. The Commission has not conducted a full review of this order since 1999-2000.

[4] Interested parties were also requested to provide a list of three to five leading purchasers in the U.S. market for the domestic like product and the subject merchandise. Presented in app. D are the responses received from purchaser surveys transmitted to the purchasers identified in this proceeding.

Responses to the Commission's notice of institution

Individual responses

The Commission received one submission in response to its notice of institution in the subject review from the Committee for Fairly Traded Japanese Cement ("Committee"); the United Steel, Paper & Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union ("Steelworkers"); and the International Union of Operating Engineers ("Operating Engineers"), collectively referred to herein as "domestic interested parties."[5]

A complete response to the Commission's notice of institution requires that the responding interested party submit to the Commission all the information listed in the notice. Responding firms are given an opportunity to remedy and explain any deficiencies in their responses. A summary of the number of responses and estimates of coverage for each is shown in table I-2.

Table I-2
Gray portland cement and cement clinker: Summary of completed responses to the Commission's notice of institution

Interested party	Type	Number of entities	Coverage
U.S. association/labor unions	Domestic	3	***

Note: The coverage figure presented is the domestic interested parties' estimate of their share of total production in California of gray portland cement and cement clinker during 2021. Based on data provided in their response to the notice of institution, staff estimates that the domestic interested parties represent approximately *** percent of total production in the United States of gray portland cement and cement clinker during 2021.

Source: Domestic interested parties' response to the notice of institution, July 1, 2022, exh. 1; Domestic interested parties' supplemental response to the notice of institution, July 14, 2022, exh. Supp-1.

[5] The Committee is an ad hoc association consisting of the following two domestic producers of gray portland cement and cement clinker: Cemex, Inc. ("Cemex"); and National Cement Company of California, Inc. ("National"). The Steelworkers is a labor union that represents workers employed in the production of gray portland cement and cement clinker at California Portland Cement Co. (Oro Grande and Redding, California) ("CalPortland"), Cemex (Victorville, California), Martin Marietta Materials, Inc. (Tehachapi, California) ("Martin Marietta"), and National (Lebec, California). The Operating Engineers is a labor union that represents workers employed in the production of gray portland cement and cement clinker at CalPortland (Mojave, California).

Party comments on adequacy

The Commission received party comments on the adequacy of responses to the notice of institution and whether the Commission should conduct an expedited review from the domestic interested parties. They request that the Commission conduct an expedited review of the antidumping duty order on gray portland cement and cement clinker.[6]

The original investigation

The original investigation resulted from a petition filed on May 18, 1990 with Commerce and the Commission.[7] On March 22, 1991, Commerce determined that imports of gray portland cement and clinker from Japan were being sold at less than fair value ("LTFV").[8] The Commission determined on April 29, 1991 that the domestic industry was materially injured by reason of LTFV imports of gray portland cement and clinker from Japan.[9] On May 10, 1991, Commerce issued its antidumping order with the final weighted-average dumping margins ranging from 45.29 to 84.70 percent.[10]

The first five-year review

On November 4, 1999, the Commission determined that it would conduct a full review of the antidumping duty order on gray portland cement and cement clinker from Japan.[11] On March 3, 2000, Commerce determined that revocation of the antidumping duty order on gray portland cement and cement clinker from Japan would be likely to lead to continuation or

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[6] Domestic interested parties' comments on adequacy, August 15, 2022, p. 2.

[7] The petition was filed by members of the Ad Hoc Committee of Southern California Producers of Gray Portland Cement. These members included: National (Encino, California) and Southwestern Portland Cement (Houston, Texas). In an amendment to the petition filed on June 22, 1990, petitioners added the following co-petitioners: Independent Workers of North America, Locals 49, 52, 89, 192, and 471, and the International Union of Operating Engineers, Local 12. These unions represented the workers at the following plants: Southwestern/Victorville, National/Lebec, Calaveras/Tehachapi, CPC/Mojave, and Riverside/Oro Grande. Gray Portland Cement and Cement Clinker from Japan, Inv. No. 731-TA-461 (Final), USITC Publication 2376, April 1991 ("Original publication"), p. A-1, n.4.

[8] 56 FR 12156, March 22, 1991.

[9] 56 FR 21391, May 8, 1991.

[10] 56 FR 21658, May 10, 1991.

[11] 64 FR 62689, November 17, 1999. The Commission also determined to conduct full reviews on gray portland cement and cement clinker from Mexico and Venezuela that were instituted on the same day as the review concerning Japan. Ibid.

recurrence of dumping.[12] On November 1, 2000, the Commission determined that material injury would be likely to continue or recur within a reasonably foreseeable time if the order on gray portland cement and cement clinker from Japan were revoked.[13] Following affirmative determinations in the five-year review by Commerce and the Commission, effective November 15, 2000, Commerce issued a continuation of the antidumping duty order on imports of gray portland cement and cement clinker from Japan.[14]

The second five-year review

On January 6, 2006, the Commission determined that it would conduct an expedited review of the antidumping duty order on gray portland cement and cement clinker from Japan.[15] On February 7, 2006, Commerce determined that revocation of the antidumping duty order on gray portland cement and cement clinker from Japan would be likely to lead to continuation or recurrence of dumping.[16] On May 31, 2006, the Commission determined that material injury would be likely to continue or recur within a reasonably foreseeable time if the order on gray portland cement and cement clinker from Japan were revoked.[17] Following affirmative determinations in the five-year review by Commerce and the Commission, effective June 16, 2006, Commerce issued a continuation of the antidumping duty order on imports of gray portland cement and cement clinker from Japan.[18]

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[12] 65 FR 11549, March 3, 2000.

[13] 65 FR 65327, November 1, 2000. The Commission also determined that revocation of the order on gray portland cement and cement clinker from Mexico would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. However, it determined that termination of the suspended antidumping duty and countervailing duty investigations covering gray portland cement and cement clinker from Venezuela would not be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. Ibid.

[14] 65 FR 68979, November 15, 2000. Commerce also issued a continuation of the antidumping duty order on gray portland cement and cement clinker from Mexico. Ibid. Following negative determinations by the Commission in the five-year reviews concerning imports from Venezuela, Commerce published its termination of the suspended antidumping duty and countervailing duty investigations covering gray portland cement and cement clinker from Venezuela. 65 FR 68974, November 15, 2000.

[15] 71 FR 5069, January 31, 2006. On the same date, the Commission determined that it should proceed to a full review in the five-year review concerning the antidumping duty order on subject imports from Mexico. 71 FR 2957, January 18, 2006.

[16] 71 FR 6268, February 7, 2006.

[17] 71 FR 32127, June 2, 2006.

[18] 71 FR 34892, June 16, 2006. Following changed circumstances reviews, Commerce revoked the antidumping duty order on gray portland cement and cement clinker from Mexico effective April 1, 2009. 74 FR 15435, April 6, 2009.

The third five-year review

On August 5, 2011, the Commission determined that it would conduct an expedited review of the antidumping duty order on gray portland cement and cement clinker from Japan.[19] On August 31, 2011, Commerce determined that revocation of the antidumping duty order on gray portland cement and cement clinker from Japan would be likely to lead to continuation or recurrence of dumping.[20] On December 2, 2011, the Commission determined that material injury would be likely to continue or recur within a reasonably foreseeable time if the order on gray portland cement and cement clinker from Japan were revoked.[21] Following affirmative determinations in the five-year review by Commerce and the Commission, effective December 16, 2011, Commerce issued a continuation of the antidumping duty order on imports of gray portland cement and cement clinker from Japan.[22]

The fourth five-year review

On March 3, 2017, the Commission determined that it would conduct an expedited review of the antidumping duty order on gray portland cement and cement clinker from Japan.[23] On March 6, 2017, Commerce determined that revocation of the antidumping duty order on gray portland cement and cement clinker from Japan would be likely to lead to continuation or recurrence of dumping.[24] On June 29, 2017, the Commission determined that material injury would be likely to continue or recur within a reasonably foreseeable time if the order on gray portland cement and cement clinker from Japan were revoked.[25] Following affirmative determinations in the five-year review by Commerce and the Commission, effective July 17, 2017, Commerce issued a continuation of the antidumping duty order on imports of gray portland cement and cement clinker from Japan.[26]

[19] 76 FR 50252, August 12, 2011.
[20] 76 FR 54206, August 31, 2011.
[21] 76 FR 76760, December 8, 2011.
[22] 76 FR 78240, December 16, 2011.
[23] 82 FR 12465, March 3, 2017.
[24] 82 FR 12561, March 6, 2017.
[25] 82 FR 31068, July 5, 2017.
[26] 82 FR 32682, July 17, 2017.

Previous and related investigations

The Commission has conducted a number of previous import relief investigations on gray portland cement and cement clinker or similar merchandise, as presented in table I-3.

Table I-3
Portland cement: Previous and related Commission proceedings and status of orders

Date	Number	Country	ITC final determination	Current status of order
1959	AA1921-12	Canada	Negative	---
1961	AA1921-16	Sweden	Affirmative	Finding revoked, 1979
1961	AA1921-19	Belgium	Affirmative	Finding revoked, 1981
1961	AA1921-22	Portugal	Affirmative	Finding revoked, 1978
1962	AA1921-23	Dominican Republic	Negative	---
1963	AA1921-25	Dominican Republic	Affirmative	Finding revoked, 1994
1964	AA1921-38	Japan	Negative	---
1975	AA1921-Inq.-3	Mexico	Terminated	---
1976	AA1921-161	Mexico	Negative	---
1978	AA1921-184	Canada	Negative	---
1983	731-TA-108-109	Australia	Negative	---
1983	731-TA-108-109	Japan	Negative	---
1986	731-TA-356-363	Colombia	Negative	---
1986	731-TA-356-363	France	Negative	---
1986	731-TA-356-363	Greece	Negative	---
1986	731-TA-356-363	Japan	Negative	---
1986	731-TA-356-363	Mexico	Negative	---
1986	731-TA-356-363	Korea	Negative	---
1986	731-TA-356-363	Spain	Negative	---
1986	731-TA-356-363	Venezuela	Negative	---
1990	731-TA-451	Mexico	Affirmative	Order revoked after changed circumstances review, 2009
1991	731-TA-461	Japan	Affirmative	Ongoing fifth review
1991	303-TA-21 and 731-519	Venezuela	Affirmative	Suspension agreement terminated after first reviews, 2000

Source: U.S. International Trade Commission publications and Federal Register notices.

Note: “Date” refers to the year in which the investigation was instituted by the Commission.

Note: In addition to the listed investigations, imports of gray portland cement from Norway and Poland were examined in 1962 and 1963 by the Department of the Treasury, however, it determined that U.S. imports of portland cement, other than white, nonstaining portland cement, from Norway and Poland, respectively, were not being, nor were likely to be, sold at LTFV (27 FR 11903, December 1, 1962; 28 FR 6660, June 27, 1963). During 1983, Commerce determined that subsidized portland hydraulic cement.

from Mexico was being sold in the United States (48 FR 43063, September 21, 1983). The Commission was not involved in this investigation because Mexico was not entitled to an injury investigation in countervailing duty cases at that time. The investigation on Calcium Aluminate Cement and Cement Clinker from France was instituted in 1993 as Inv. No. 731-TA-645. The ITC's final determination was negative (59 FR 24469, May 11, 1994).

Commerce's five-year review

Commerce announced that it would conduct an expedited review with respect to the order on imports of gray portland cement and cement clinker from Japan with the intent of issuing the final results of this review based on the facts available not later than September 29, 2022.[27] Commerce publishes its Issues and Decision Memoranda and its final results concurrently, accessible upon publication at http://enforcement.trade.gov/frn/. Issues and Decision Memoranda contain complete and up-to-date information regarding the background and history of the order, including scope rulings, duty absorption, changed circumstances reviews, and anticircumvention, as well as any decisions that may have been pending at the issuance of this report. Any foreign producers/exporters that are not currently subject to the antidumping duty order on imports of gray portland cement and cement clinker from Japan are noted in the sections titled "The original investigation" and "U.S. imports," if applicable.

The product

Commerce's scope

Commerce has defined the scope as follows:

> *The products covered by the order are cement and cement clinker from Japan. Cement is a hydraulic cement and the primary component of concrete. Cement clinker, and intermediate material produced when manufacturing cement, has no use other than grinding into finished cement. Microfine cement was specifically excluded from the antidumping duty order. Cement is currently classifiable under the Harmonized Tariff Schedule (HTS) item number 2523.29 and cement clinker is currently classifiable under HTS item number 2523.10. Cement has also been entered under HTS item number 2523.90 as "other hydraulic cements." The HTS item numbers are provided for convenience*

[27] Letter from Alex Villanueva, Director, AD/CVD Operations, Enforcement and Compliance, U.S. Department of Commerce to Nannette Christ, Director of Investigations, July 21, 2022.

and customs purposes. The written product description remains dispositive as to the scope of the product covered by the order. [28]

U.S. tariff treatment

Gray portland cement is currently provided for in Harmonized Tariff Schedule of the United States ("HTSUS" or "HTS") subheading 2523.29.00 and cement clinker is provided for in HTS subheading 2523.10.00. Gray portland cement may also be imported as "other hydraulic cement" under HTS subheading 2523.90.00. Gray portland cement and cement clinker originating in Japan and nonsubject countries are imported into the U.S. market at a column 1-general duty rate of "Free."[29] However, effective April 9, 2022, Congress imposed the column 2 duty rate of $1.32 per metric ton ($1.20 per short ton) including the weight of the container upon nonsubject gray portland cement and cement clinker originating in either Belarus or Russia (both nonsubject countries).[30] Gray portland cement and cement clinker produced in China (a nonsubject country) are currently subject to an additional 25 percent ad valorem duty under Section 301 of the Trade Act of 1974, as amended.[31] Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Description and uses[32]

Gray portland cement is a hydraulic (sets or hardens under water) industrial binding agent. Cement clinker is the intermediate product resulting from the sintering (roasting) stage of the cement production process and differs in appearance and properties from the finished cement in that clinker is in the form of small, grayish-black pellets,[33] and finished cement is in

[28] 82 FR 32682, July 17, 2017.

[29] HTSUS (2022) Revision 6, USITC Publication 5333, July 2022, p. 25-6.

[30] Suspending Normal Trade Relations with Russia and Belarus Act, P.L. 117-110, April 8, 2022; HTSUS (2022) Revision 6, USITC Publication 5333, July 2022, p. 25-6; USITC, "A Summary of the Current Tariff Treatment of Products of the Russian Federation and Products of the Republic of Belarus," June 17, 2022.

[31] 84 FR 20459, May 9, 2019.

[32] Unless otherwise noted, this information is based on Gray Portland Cement and Cement Clinker from Japan, Investigation No. 731-TA-461 (Fourth Review), USITC Publication 4704, June 2017 ("Fourth review publication"), pp. I-5 – I-9.

[33] Portland Cement Association ("PCA"), "How Cement is Made," ©2019, https://www.cement.org/cement-concrete/how-cement-is-made, retrieved July 29, 2022.

the form of grayish powder.[34] Clinker has no other use than production of cement. If protected from moisture, clinker can be stored and transported to other locations (markets) for finish grinding into cement, a process, which includes the addition of three to five percent gypsum (hydrated calcium sulfate) and other materials to retard water absorption and allow for easier handling. This grinding step and the materials added determine the specifications and type of finished cement.

Portland cement is the most common of the four major categories of hydraulic cements.[35] All cement, including imports from Japan, generally conform to the standards established by the American Society for Testing and Materials ("ASTM") C150-22: Standard Specification for Portland Cement. General descriptions of the five standard types of portland cement are defined by ASTM as follows:

- Type I: For use when the special properties specified for any other type are not required;
- Type II: For general use, especially when moderate sulfate resistance or moderate heat of hydration is required;
- Type III: For use when high early strength is required;
- Type IV: For use when a low heat of hydration is required; and
- Type V: For use when high sulfate resistance is required.[36]

In 2018, types I and II portland cement together accounted for 72.8 percent of the quantity of all shipments of portland cement from U.S. plants (table I-4).[37] Although specifications for type I and type II portland cement are very similar, they differ in that type I

[34] Almost all portland cement production is gray in color, but a white portland cement is manufactured from raw materials free of iron and manganese which give portland cement its gray color. PCA, "Cement & Concrete Basics FAQs," ©2019, https://www.cement.org/cement-concrete/cement-and-concrete-basics-faqs, retrieved July 29, 2022.

White portland cement was not covered by Commerce's scope in the original investigation or subsequent five year reviews.

[35] Portland, masonry, pozzolanic, and natural or Roman cement are the four major categories of hydraulic cements. In 2013, the U.S. Geological Survey ("USGS") reported that portland cement accounted for approximately 97.5 percent of the four major categories of hydraulic cement domestic production in 2013 (the latest year for which data are available). USGS, Annual Minerals Yearbook, Cement, 2013.

[36] ASTM C150/C150M-22: Standard Specification for Portland Cement, Abstract, July 26, 2022, https://www.astm.org/c0150_c0150m-22.html.

[37] Types I and II portland cement together accounted for just under 77 percent in 2013, 79 percent in 2008, and 83 percent in 2003; and just over 90 percent in 1998 of the quantity of all shipments of portland cement from U.S. plants (table I-4).

has no specifications for several items that are specified for type II. Thus, type II cement meets all the requirements of type I cement and may be used in lieu of type I.

Table I-4
Portland cement: Shipments from U.S. plants to domestic consumers, by types of cements, 1998, 2003, 2008, 2013, and 2018

Quantity in 1,000 short tons
"NR" = Not reported.

Cement type	1998	2003	2008	2013	2018
General use (types I and II)	85,066	89,500	73,600	61,000	70,000
High-early strength (type III)	3,151	3,750	3,450	2,670	2,820
Sulfate-resisting (type V)	2,757	10,600	11,800	11,100	18,300
Block	594	752	509	165	157
Oil well	797	1,090	1,470	2,420	1,930
White	790	985	823	794	867
Blended	671	1,570	1,960	1,270	1,950
Expansive and regulated fast setting	53	52	36	NR	NR
Miscellaneous	79	88	NR	37	40
Total (reported)	94,408	108,000	93,600	79,500	96,100

Source: Compiled from data provided by the U.S. Geological Survey ("USGS"), 2018 Minerals Yearbook, Cement, Cement (Advance Release), April 2022, p. 16-18; USGS, 2013 Minerals Yearbook, Cement (Advance Release), December 2015, pp. 16-21; USGS, 2008 Minerals Yearbook, Cement, October 2010, p. 16-21; USGS, 2003 Minerals Yearbook, Cement, 2003, p. 16-22; USGS, 1998 Minerals Yearbook, Cement, 1998, p. 16-28.

Note: The USGS portland cement classification includes some cements that are special blends consisting of portland cement but are technically outside of the portland cement category.

Note: The United States includes Puerto Rico.

Note: Miscellaneous includes waterproof, low-heat (type IV), and regulated fast-setting cement.

Note: Data may not add to totals shown because of rounding.

In addition to the standard portland cements, there are several special cement blends that contain portland cement. Blended cements are inter-ground mixtures of finished portland cement and one or two cementitious additives: limestone, slag cement, fly ash, silica fume, or calcined clay. Blended hydraulic cements generally conform to the standards established by the ASTM C595: Standard Specification for Blended Hydraulic Cements.[38] Blended cements, with or without any supplemental cementitious materials ("SCMs"), are utilized in the same concrete

[38] ASTM C595/C595M-21: Standard Specification for Blended Hydraulic Cements, Abstract, June 29, 2022, https://www.astm.org/c0595_c0595m-21.html.

construction applications as are portland cements.[39] Portland limestone cement ("PLC") is a blended cement with a higher limestone and lesser clinker content than portland cement. According to the Portland Cement Association ("PCA"), PLCs are utilized in the same applications, perform the same, and are compatible with all supplementary cementing materials, but contain 10-percent lower carbon on average, as portland cement.[40] Domestic interested parties noted that some domestic cement firms started producing, or announced plans to produce, PLC due to the high costs of complying with greenhouse gas emissions regulations.[41] In accordance with the PCA's Roadmap to Carbon Neutrality,[42] cement firms throughout the United States, including California, are currently offering lower carbon-containing portland limestone cement ("PLC") along with announcing plans to transition away from producing gray portland cement in the next few years.[43] Cement firms also announced various initiatives during 2015–22 to comply with the stringent emissions limits under the 2010 National Emissions Standards for Hazardous Air Pollutants ("NESHAP") protocol and the cement industry's broader commitments to sustainability, including new blended cement product lines, renewable energy plans, decarbonization research initiatives, etc.[44]

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[39] PCA, "Cement & Concrete Basics FAQs," ©2019, https://www.cement.org/cement-concrete/cement-and-concrete-basics-faqs, retrieved July 29, 2022.

[40] The U.S. standard for portland cement allows for up to 5 percent of the clinker to be replaced by limestone, but the standard for blended cement allows for 5–15 replacement in PLC (Type IL). PCA, "Portland-Limestone Cement and Sustainability," ©2019, https://www.cement.org/sustainability/portland-limestone-cement, retrieved August 3, 2022.

[41] Domestic interested parties' response to the notice of institution, July 1, 2022, p. 52; exh. 27.

[42] PCA, Roadmap to Carbon Neutrality, a More Sustainable World is Shaped by Concrete, Skokie, IL: PCA, October 10, 2021, https://www.cement.org/docs/default-source/cement-concrete-applications/pca_roadmap-to-carbon-neutrality_jan-2022.pdf?sfvrsn=33d8fcbf_2; PCA, "Roadmap to Carbon Neutrality," ©2019, https://www.cement.org/sustainability/roadmap-to-carbon-neutrality, retrieved August 3, 2022.

[43] See table I-6 in the "Recent developments" section for the California and U.S. industries.

[44] According to the USGS, both production-efficiency upgrades and emissions-reduction equipment installations are anticipated to improve the ability of individual plants to comply with the NESHAP protocol, effective September 2015, that reduced the acceptable emissions levels for mercury and certain other pollutants emitted from cement facilities. However, it remained unclear whether such enhancements would be economic for all individual kilns (especially those relying upon older technologies) at multi-kiln facilities. It is also possible that some kilns could be shutdown, idled, or operated at reduced capacity to comply with NESHAP limits, which would constrain U.S. clinker production capacity. USGS, "Cement," Mineral Commodity Summaries 2022, January 2022, p. 45; USGS, "Cement," Mineral Commodity Summaries 2021, January 2021, p. 43; USGS, "Cement," Mineral Commodity Summaries 2020, January 2020, p. 43; USGS, "Cement," Mineral Commodity Summaries 2019, February 2019, p. 43; USGS, "Cement," Mineral Commodity Summaries 2018, January 2018, p. 43; USGS, "Cement," Mineral Commodity Summaries 2017, January 2018, p. 45; USGS, "Cement," Mineral Commodity Summaries 2016, January 2016, p. 45.

Cement is hygroscopic, which is a tendency to absorb water. Because cement is hygroscopic, it must be handled and stored in a manner that minimizes the possibility of contamination by water. Thus, both domestic producers and importers must use some type of enclosed system or storage silo and relatively sophisticated equipment to handle finished cement.

Gray portland cement is used predominantly in the production of concrete, which in turn is consumed almost wholly by the construction industry. The principal end users are highway construction using ready-mix concrete and building construction using ready-mix concrete, concrete blocks, and precast concrete units. In many building applications, concrete is used with steel reinforcement to obtain greater strength and durability. One ton of portland cement is used to make about 4 cubic yards of concrete.

Concrete, as a major material in building construction, competes with structural steel, clay products, building stone, and other materials in various building construction applications. However, in almost every type of structure, regardless of the principal building material used, there are certain basic uses for concrete (foundations, basements, floors, and so forth) for which there is little direct competition. The choice of the principal structural material is governed by many factors, such as cost, personal preference, and building code specifications.

Concrete made with gray portland cement is one of the most widely used construction materials in the United States. Table I-5 shows the types of customers for gray portland cement during 1998, 2003, 2008, 2013, and 2018 (the latest year for which data are available).

Table I-5
Gray portland cement: U.S. producer shipments, by types of customers, 1998, 2003, 2008, 2013, and 2018.

Quantity in 1,000 short tons

Customer type	1998	2003	2008	2013	2018
Ready-mixed concrete	70,159	80,100	68,200	56,800	68,500
Concrete product manufacturers	11,277	14,900	11,900	9,090	11,100
Road paving, airport, soil concrete, and other contractors	7,461	6,860	6,830	5,870	8,400
Building material dealers	3,566	4,090	3,130	3,350	3,950
Oil well drilling, mining, and waste stabilization	1,051	1,440	2,990	3,670	2,840
Government agencies and all others	1,014	970	2,030	1,440	1,860
Total	94,408	108,000	95,000	80,200	96,700

Source: Compiled from data provided by the U.S. Geological Survey ("USGS"), 2018 Minerals Yearbook, Cement (Advance Release), April 2022, p. 16-17; USGS, 2013 Minerals Yearbook, Cement (Advance Release), December 2015, p. 16-20; USGS, 2008 Minerals Yearbook, Cement, October 2010, p. 16-20; USGS, 2003 Minerals Yearbook, Cement, 2003, p. 16-21; USGS, 1998 Minerals Yearbook, Cement, 1998, p. 16-27.

Note: Includes cement imported and distributed by domestic producers.

Note: United States includes Puerto Rico.

Note: Totals may not sum due to rounding.

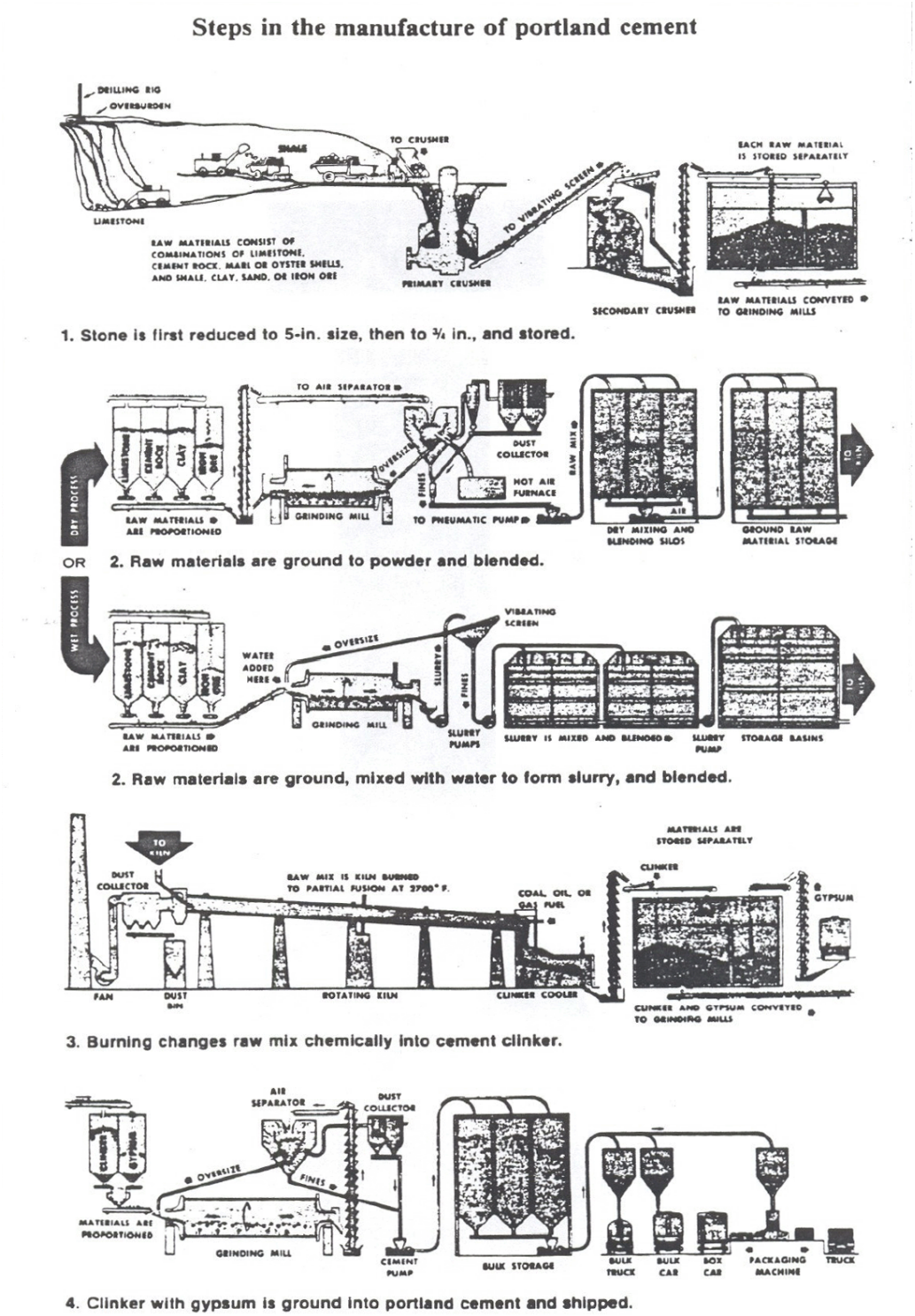
Manufacturing process[45]

For both the imported and domestic products, the production process for gray portland cement is standardized, with no significant technological advances since the original investigation was completed in 1991. Gray portland cement is manufactured from a properly proportioned mixture of raw materials containing chemical components of calcium carbonate, silica, alumina, and iron oxide that react when combined with aggregate and water to form concrete. The raw material mixture usually consists of limestone (a source for calcium carbonate), clay (for silica and alumina), and iron ore (for iron oxide). In cases where the common materials are not available or contain an insufficient amount of the chemical components, other mined materials or industrial products may be substituted or used as additives to correct the deficiencies. The mixture is crushed, ground, and blended into a mill feed that is sintered at about 2,700 degrees Fahrenheit in refractory-lined, cylindrical, steel rotary kilns to make cement clinker.

[45] Unless otherwise noted, this information is based on Fourth review publication, pp. I-9 – I-13.

Figure I-1 presents the wet and dry materials blending processes to produce cement.

Figure I-1
Gray portland cement: Steps in the manufacture of gray portland cement



Source: Texas Comptroller of Public Accounts, “Audit Procedures for Cement Production Tax,” August 2017, p. 5, https://comptroller.texas.gov/taxes/audit/docs/cement-manual.pdf.

The differences between wet and dry blending are procedural; there are no chemical or physical characteristic differences between the end products. In the wet process, the raw materials are ground, blended, and mixed with water to produce a slurry. This slurry is fed into rotary kilns in which it is heated to induce chemical reactions that convert the raw material into cement clinker. The wet process has typically been used where some of the raw materials are very moist; it is also the older process.

In the dry process, all grinding and blending operations utilize dry materials in a roller mill. The more technically advanced facilities in the United States and Japan improve the efficiency of the dry process by feeding the blended raw material through a preheater and precalciner in which it is partially heated using vented kiln gases and partially calcined by direct firing in a blast furnace before entering the rotary kiln. In those dry process facilities that do not include preheater/precalciner technology, the raw material is fed directly into a rotary kiln in which it is calcined into clinker.

The main advantage of the dry process is that it is more fuel efficient, depending on the moisture content of raw materials economically available; preheaters and precalciners further improve this efficiency.[46] Kiln size is also a factor in fuel efficiency, with larger kilns being more efficient than the smaller ones. However, the dry process requires more electricity per unit of output than the wet process. Although electricity is used mostly for grinding clinker and pollution control, it is also used to operate the fuel conservation equipment (i.e., preheaters and precalciners).[47]

In 2013, approximately 95 percent of U.S. cement clinker was produced by the dry production process;[48] many domestic producers converted their facilities to the dry process to counter higher fuel costs because of the energy crisis in the mid-1970s. The rise in proportion of the dry process reflects the closure and idling of less efficient wet process facilities.[49] In Japan, dry processes are reportedly used for all cement clinker production since 1980 (figure I-2).[50]

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[46] In 2009, the USGS reported that the dry process with preheaters consumed eight percent less fuel than the national average of fuel consumed by all kilns per short ton of clinker production, whereas the wet process consumed 54 percent more than the national average. USGS, Annual Mineral Industry Survey, Cement, 2009.

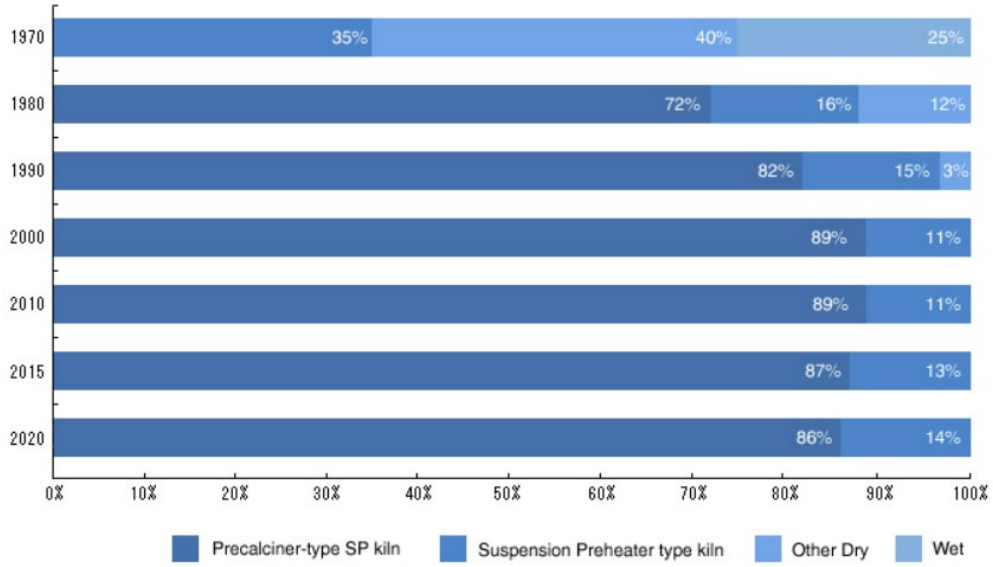
[47] In 2013, the USGS reported that the dry process production lines consumed more electricity than equivalent capacity wet process lines. USGS, Annual Mineral Industry Survey, Cement, 2013.

[48] USGS, Annual Minerals Yearbook, Cement, 2013.

[49] USGS, Annual Mineral Industry Survey, Cement, 2009.

[50] Japan Cement Association ("JCA"), "Production Ratio by Kiln Type," no date, https://www.jcassoc.or.jp/cement/2eng/e_02b.html, retrieved July 13, 2022.

Figure I-2
Cement: Production ratios in Japan by kiln type, 1970–2020



Source: Japan Cement Association ("JCA"), "Statistics - Production by Kiln Type," no date, https://www.jcassoc.or.jp/cement/2eng/e_02b.html, retrieved July 13, 2022.

For both the wet and dry processes, the major sources of energy to operate the kiln include coal, fuel oil, and natural gas. In the United States, the fuel predominantly used is coal; in the original investigation, the Japanese industry reported using mostly fuel oil. The choice of fuel is generally determined by the economics of fuel prices; transportation cost to the production site; efficiency cost of using one fuel over another; and, for already established facilities, the additional capital cost for handling equipment to convert from one fuel to another.[51]

The industry in the United States

U.S. producers

According to the USGS, in 2021, cement was manufactured at 96 plants in 34 states by 43 companies, plus 2 in Puerto Rico (other company totals are possible depending on ownership breakdowns).[52] This compares with 99 plants in 34 states by 34 companies, plus 2 in

[51] Commerce, International Trade Administration, A Competitive Assessment of the U.S. Cement Industry, July 1987, p. 150.

[52] USGS, "Cement," Mineral Commodity Summaries 2021, January 2021; Domestic interested parties' response to the notice of institution, July 1, 2022, p. 35; exhs. 1, 10.

Puerto Rico in 2015;[53] 107 plants in 37 states, plus two in Puerto Rico in 2009; 116 plants in 37 states, plus 2 in Puerto Rico in 2003; and 115 plants in 37 states, plus 2 in Puerto Rico in 1999.[54]

During the final phase of the original investigation, seven plants of U.S. producers, accounting for *** percent of reported production of portland cement in the Southern California region in 1990, supplied income-and-loss data on their portland cement and cement clinker operations.[55] Ten plants of U.S. producers, accounting for *** percent of reported production of portland cement in the State of California in 1990, provided income-and-loss data on their portland cement and cement clinker operations.[56]

During the full first five-year review, the Commission received U.S. producer questionnaires from firms that accounted for all production of gray portland cement and cement clinker in the Southern-tier, Southern California, and Florida regions and for more than 80 percent of overall U.S. production in 1999.[57]

Data presented in the Commission's expedited third five-year review report are from USGS Minerals Yearbook (2005 data) and from four domestic producers (Cemex, Lehigh, National, and Riverside) that were believed to have represented *** of production of gray portland cement and cement clinker in California during 2010 and *** of production of gray portland cement and cement clinker in the United States.[58]

During the fourth five-year review, three U.S. producers (Cemex, Lehigh, and National) provided data in response to the Commission's notice of institution. Those three producers accounted for approximately *** percent and *** percent of total production in California of gray portland cement and cement clinker, respectively, during 2013. They accounted for

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[53] USGS, "Cement," Mineral Commodity Summaries 2016, January 2016. There were plant closures in 2012 of a grinding plant in Idaho, and integrated plant in Kansas, and one of two grinding plants in Michigan. USGS, Annual Mineral Industry Summary, Cement, 2013; USGS, Minerals Yearbook, Cement, 2013.

[54] USGS, Monthly Mineral Industry Survey, Cement, 2010; USGS, Annual Mineral Industry Summary, Cement, April 2004; USGS, Annual Mineral Industry Summary, Cement, April 2000.

[55] Investigation No. 731-TA-461 (Final): Gray Portland Cement and Cement Clinker from Japan, Confidential Report, INV-O-057, April 15, 1991 ("Original confidential report"), p. A-48. For further information on the Commissions past domestic industry determinations see section of this report titled "Definitions of the domestic like product and domestic industry."

[56] Original confidential report, p. A-58.

[57] Gray Portland Cement and Cement Clinker from Japan, Inv. No. 731-TA-461 (Review), USITC Publication 3361, October 2000 ("First review publication"), p. III-1.

[58] Gray Portland Cement and Cement Clinker from Japan, Inv. No. 731-TA-461 (Third Review), USITC Publication 4281, December 2011 ("Third review publication"), tables I-6 and I-7; Investigation No. 731-TA-461 (Third Review): Gray Portland Cement and Cement Clinker from Japan, Confidential Report, INV-JJ-088, September 12, 2011 ("Third review confidential report"), p. I-35.

*** percent and *** percent of total production in the United States of gray portland cement and cement clinker, respectively, during 2015.[59]

In response to the Commission's notice of institution in this current review, domestic interested parties provided a list of 48 known and currently operating U.S. producers of gray portland cement and cement clinker in the United States, 6 of which operate facilities in California.[60] The domestic interested parties provided U.S. industry data in this review for four firms (CalPortland (Oro Grande and Redding, California facilities); Cemex; Martin Marietta (Tehachapi, California plant); and National) in response to the Commission's notice of institution that accounted for approximately *** percent of production of gray portland cement and cement clinker in California during 2021 and *** percent of production of gray portland cement and cement clinker in the United States.[61]

Recent developments

Table I-6 presents events in the California and U.S. industries that have occurred since the last five-year review.[62]

Table I-6
Gray portland cement and cement clinker: Recent developments in the California and U.S. industries since 2015

Item	Firm	Event
Expansion (California)	CalPortland	March 2019—CalPortland, a subsidiary of Taiheiyo Cement Corp., Japan, commissioned a new finish grinding mill and distribution system that raised the production capacity by 64 percent at its cement facility in Oro Grande, California.
Upgrade (California)	CalPortland	May 2020—CalPortland awarded a contract for a new OK® 48-4 Raw Mill with Condition Monitoring System and an ECS/ProcessExpert system to upgrade the raw mill at its cement facility in Mojave, California, which are anticipated to become operational by late 2021.
Product shift (California)	CalPortland	April 2022—Citing its commitments to the Portland Cement Association's ("PCA'a") Roadmap to Carbon Neutrality, CalPortland announced completing the conversion of its cement facility in Mojave, California, from ordinary portland

[59] Investigation No. 731-TA-461 (Fourth Review): Gray Portland Cement and Cement Clinker from Japan, Confidential Report, INV-PP-012, January 23, 2017 ("Fourth review confidential report"), p. I-2.

[60] Domestic interested parties' response to the notice of institution, July 1, 2022, exh. 1.

[61] Domestic interested parties' response to the notice of institution, July 1, 2022, exh. 1; Domestic interested parties' supplemental response to the notice of institution, July 14, 2022, exh. Supp-1.

[62] For recent developments, if any, in tariff treatment, please see "U.S. tariff treatment" section.

Item	Firm	Event
		cements (“OPCs”) to its ADVANCEMENT™ HS, a blended portland-limestone cement (“PLC”). Shifting to PLC production is anticipated to reduce carbon emissions by 10 percent on a per-short ton basis at this facility with cement production capacity of 1.3 million short tons per year.
Closure (California)	Lehigh Hanson	February 2022—The Santa Clara County Board of Supervisors voted to approve purchasing and shuttering the Lehigh Hanson Inc. (a subsidiary of HeidelbergCement Group, Germany) cement facility, that has been idled since 2019 when overheating damaged the kiln, and its Permanente limestone quarry near Cupertino, California, citing a decade-long record of environmental-protection violations.
Acquisition (California)	CalPortland	September 2015—CalPortland completed its acquisition of the cement facility in Oro Grande, California, but not the one in Crestmore, California, from Martin Marietta Materials Inc.
Acquisition (California)	Martin Marietta Materials	October 2021—Martin Marietta completed its acquisition of the cement facilities in Monolith (Tehachapi) and in Redding, California, from Lehigh Hanson (a subsidiary of HeidelbergCement Group, Germany).
Acquisition (California)	CalPortland	June 2022—CalPortland completed its acquisition of the cement facility in Redding, California, from Martin Marietta Materials.
Closure (California)	Martin Marietta Materials	September 2015—Martin Marietta ceased producing gray portland cement at its cement facility in Crestmore, California. This facility operated as a grinding and bagging facility for the excess clinker produced by its cement facility in Oro Grande, California. Sale of the Oro Grande facility to CalPortland severed this facility’s clinker supply. However, production of white portland cement continued at this facility in Crestmore.
Emissions control legislation (California)	All in California	September 2021—California’s Greenhouse Gases: Cement Sector: Net-zero Emissions Strategy Act, effective January 1, 2022, requires state cement producers to comply with a comprehensive strategy, to be developed by the California Air Resources Board (“CARB”), for reducing greenhouse-gas emissions to achieve the state’s carbon neutrality goals by year 2045. Existing CARB regulations, authorized under the state’s Global Warming Solutions Act (“GWSA”), enacted September 27, 2006, already require cement producers to submit “emissions allowances” for each ton of greenhouse gasses emitted from the production of cement.

Item	Firm	Event
New facility (USA)	US Cement	July 2020—US Cement LLC secured the final air-quality permits for constructing a new 1.2 million short tons per year cement facility in Perry, Georgia.
New facility (USA)	Lehigh Hanson	July 2022—Lehigh Hanson (a subsidiary of HeidelbergCement Group, Germany) completed construction of a new $600-million cement facility (announced back in July 2018) on the site of its previous facility in Mitchell, Indiana. According to Lehigh Hanson, this new "plant modernization project which will increase production capacity while also significantly reducing energy usage and emissions per ton of cement produced." Construction commenced in October 2019 and resumed in September 2020 after interruption due to the COVID-19 epidemic. Commissioning this new facility is anticipated in early 2023.
Restart (USA)	St. Marys Cement	Second-quarter 2015—St. Marys Cement Inc. (a subsidiary of Votorantim Cimentos S.A., Brazil) restarted clinker production (in April) and cement production (in June) at its previously idled (since early 2009) cement facility in Dixon, Illinois.
Expansion (USA)	St. Marys Cement	June 2018—St. Marys Cement completed a $186 million production capacity expansion (by 40 percent to 2.1 million short tons per year) at its cement facility in Charlevoix, Michigan. Processing upgrades include a new raw mill, preheater and precalciner, calciner, and grinding mill.
Expansion (USA)	GCC	December 2018—Groupo Cementos de Chihuahua (GCC) S.A.B. de C.V. (Mexico) completed the expansion of its cement facility in Rapid City, South Dakota.
Expansion (USA)	Lehigh Hanson	February 2021—Lehigh Cement Co. (a subsidiary of Lehigh Hanson Inc.) resumed its $600m expansion project (started in October 2019) at its cement facility in Mitchell, Texas, after a construction hiatus due to the COVID-19 epidemic.
Expansion (USA)	GCC	August 2022—Groupo Cementos de Chihuahua (GCC) S.A.B. de C.V. (Mexico) announced $750-million capacity expansion project for its cement facility in in Odessa, Texas. The facility's annual cement production capacity is planned to increase by over one million metric tons (over 1.1 million short tons) with a 13-percent lower greenhouse gas intensity. Operations are anticipated to commence by mid-2025.
Upgrade (USA)	LafargeHolcim	June 2016—LafargeHolcim Ltd. (Switzerland) replaced the old long dry kiln with a new preheater and precalciner kiln at its cement plant in Hagerstown, Maryland.

Item	Firm	Event
Upgrade (USA)	Buzzi Unicem USA	August 2016—Buzzi Unicem USA (Italy) replaced three old, smaller, long dry kilns with a new preheater and precalciner kiln at its cement facility in Maryneal, Texas.
Upgrade (USA)	LafargeHolcim	May 2017—LafargeHolcim (Switzerland) replaced two wet kiln (shut down in June 2016) with a new preheater and precalciner kiln line at its cement plant in Ravena, New York. In the interim, this facility operated as grinding plant for the second half of 2016 with the finish mill being supplied by imported clinker, mostly from Turkey.
Upgrade (USA)	LafargeHolcim	June 2017—LafargeHolcim (Switzerland) completed upgrading from wet to precalciner dry (semidry) kiln technology at its cement plant in Ada, Oklahoma.
Upgrade (USA)	National	July 2022—National completed a two-year, $300 million project to upgrade and expand its cement facility in Ragland, Alabama. Production equipment upgrades include a new blending silo, vertical raw mill, preheater tower, rotary kiln that burns alternative fuels (e.g., recycled wood chips, saw dust, and tire-derived fuels (“TDF”) consisting of shredded used tires), kiln cooler, automated clay storage system, and alternative fuels storage facilities. The new kiln line will increase the existing plant’s production capacity (to 1.65 million short tons per year), improve its thermal and electrical efficiency, and produce a new low-carbon cement.
Industry emissions reduction framework	PCA members	October 2021—The PCA issued the Roadmap to Carbon Neutrality, on behalf of the domestic cement industry, to attain carbon neutrality throughout the cement-concrete-construction value chain by year 2050.
Product shift (USA)	Titan America	November 2021—Titan America LLC announced reaching 50-percent production of Tyle IL PLC at its Pennsuco facility in Medley, Florida, with the full conversion anticipated to be completed by 2023, as part of its corporate climate-impact mitigation goals. Producing Type IL PLC reportedly emits 15-percent less carbon than Type I or Type II OPCs.
Product shift (USA)	LafrargeHolcim US	January 2022—LafargeHocim US announced the conversion of cement production to OneCem® PLC at its facilities in St. Genevieve and Alpena, Michigan; and in Bloomsdale, Missouri. Conversion to low-carbon cements is anticipated to reduce annual carbon emissions by a combined 300,000 short tons from these three facilities. Last year, LafargeHocim US converted its facility in Midlothian, Texas, to produce OneCem® PLC. According to corporate officials, carbon reduction is a high

Item	Firm	Event
		priority for LafrageHolcim US, especially to reach its net-zero carbon emissions goals by mid-century.
Product shift (USA)	Cemex USA	February 2022—Cemex USA announced its facilities located in Demopolis, Alabama, and Brooksville, Florida, began producing PLC during the prior year. Likewise, as part of its corporate carbon-emission reduction goals, PLC production will be initiated at other Cemex USA facilities throughout this year. Cemex USA also announced plans to rely on more alternative fuels, including biomass, for both facilities. Its Brooksville facility is anticipated to rely upon alternative fuels for 30 percent of its total fuel supply by year-end 2022.
Product shift (USA)	Alamo Cement	March 2022—Citing its commitments to the PCA's Roadmap to Carbon Neutrality, Alamo Cement Co. announced shifting cement production to Type IL PLC will be completed at its facilities in San Antonio, Texas, by second-quarter 2022; Chattanooga, Tennessee, by mid-year 2022; and Stockertown, Pennsylvania, by year-end 2022. Producing Type IL PLCs reportedly reduce carbon emission 15 percent compared to producing Type I and Type II OPCs.
Product shift (USA)	Argos	April 2022—Argos announced cement production will transition to its new EcostrongPLC brand of PLC Type IL, that reportedly cuts carbon emissions by 10 percent compared to OPC, as part of the firm's sustainable production goals for all of its cement facilities. The transition at its facility in Newberry, Alabama is anticipated to be completed by October 2022 and by 2023 at its facilities in Harleyville, South Carolina, and Martinsburg, West Virginia.
Product shift (USA)	Buzzi Unicem USA	March 2022— Citing its commitments to the PCA's Roadmap to Carbon Neutrality, Buzzi Unicem USA Inc. announced the shifting of cement production to Type IL PLC will begin at its facilities in Greencastle, Indiana; Cape Giraudeau and Festus, Missouri; Pryor, Oklahoma; and Maryneal, Texas, by the end of first-quarter 2022. Producing Type IL PLCs reportedly reduce carbon emission 15 percent compared to producing Type I and Type II OPCs.
Product shift (USA)	Cemex USA	April 2022—Cemex USA announced increased production of PLC at its facility in Lyons, Colorado, which is anticipated to be the primary output by summer 2022. Although PLC production dates back 15 years ago at this facility, Cemex USA decided to increase PLC production to support its corporate carbon-emission reduction goals. Likewise, PLC production will be increased at other Cemex USA facilities in coming months.

Item	Firm	Event
Product shift (USA)	Lehigh Hanson	July 2022—Lehigh Hanson announced that cement production at its largest North American cement facility in Union Bridge, Maryland, will transition to its EcoCem®PLC brand by January 2023. The anticipated 10-percent reduction of carbon emissions, once this transition is completed, is equivalent to avoiding 126,000 short tons of such emissions per year. This announcement followed prior production shifts to PLC at its facilities in Mason City, Iowa; and in Logansport, Mitchell, and Sellersburg, Indiana in 2021.
Product shift (USA)	LafrargeHolcim US	April 2022—LafargeHocim US announced completing the shift of cement production to OneCem® PLC at its Joppa facility in Grand Chain, Illinois. Shifting production to PLC is anticipated to reduce this facility's carbon emissions by 35,000 short tons per year.
Product shift (USA)	Summit Materials	April 2022—Summit Materials Inc. announced completing the conversion of its facility in Davenport, Iowa (operated by Continental Cement Co. LLC), to full production of PLC. The firm's facility in Hannibal, Missouri, will also be converted to PLC production as construction market demand develops for lower-carbon cements.
Product shift (USA)	National	July 2022—To provide lower-carbon cements, National announced that production of Type I OPCs at its recently expanded and upgraded facility in Ragland, Alabama, will be switched over to PLCs by 2023.
Product shift (USA)	Cemex USA	April 2022—Cemex USA announced increased production of PLC at its facility in Lyons, Colorado, which is anticipated to be the primary output by summer 2022. Although PLC production dates back 15 years ago at this facility, Cemex USA decided to increase PLC production to support its corporate carbon-emission reduction goals. Likewise, PLC production will be increased at other Cemex USA facilities in coming months.
Acquisitions (USA)	CRH, Continental Cement	July 2015—CRH plc (Ireland) purchased a divested cement facility in Trident, Montana, from Holcim Ltd. (Switzerland), and Continental Cement LLC (a subsidiary of Summit Materials LLC) purchased a divested cement facility in Davenport, Iowa, from Lafarge S.A. (France). Completion of the previously announced (April 2014) merger between these two major European-based multinational firms, that created the largest cement firm operating in North America to date, also required the divestiture of several cement facilities in both Canada and the United States.

Item	Firm	Event
Acquisition (USA)	Lehigh Hanson	July 2016—HeidelbergCement AG (Germany) finalized its previously announced (July 2015) acquisition of Italcementi SpA (Italy) led to the merger among their respective U.S. subsidiaries operations. Lehigh Hanson (a subsidiary of HeidelbergCement Group, Germany) assumed operational control over Essroc Corp's. (a subsidiary of Italcementi SpA, Italy) cement facilities in Logansport and Speed, Indiana; Nazareth, Pennsylvania; Dorado (San Juan), Puerto Rico; and Martinsburg, West Virginia.
Acquisition (USA)	Grupo Argos	November 2016—Grupo Argos S.A. (Colombia) purchased the cement facility in Martinsburg, West Virginia, from Lehigh Hanson Inc. (a subsidiary of HeidelbergCement Group, Germany). Regulatory approval for its parent company's (July 2016) merger required Lehigh Hanson to divest this former Essroc Corp's. (a subsidiary of Italcementi SpA, Italy) cement facility. Otherwise, along with its existing cement facility in Union Bridge, Maryland, Lehigh Hanson would own two of the three cement facilities in the greater Washington, District of Columbia, market area.
Acquisition (USA)	GCC	November 2016—As part of a corporate debt-reduction effort (announced in September 2016), CEMEX S.A.B. de C.V. (Mexico) sold-off its oilwell cement plant in Odessa, Texas, to Grupo Cementos de Chihuahua (GCC) S.A.B. de C.V. (Mexico).
Acquisition (USA)	Elementia	December 2016—Elementia S.A.B. de C.V. (Mexico) entered the U.S. cement industry by acquiring a 55-percent ownership share of Giant Cement Holdings Inc. from Cementos Portland Valderrivas S.A. (Spain), including the latter's Dragon Cement Co. facility in Thomaston, Maine; Giant Cement facility in Harleyville, South Carolina; and Keystone Cement Co. facility in Bath, Pennsylvania.
Acquisition (USA)	Grupo Argos	February 2017—Groupo Argos (Colombia) purchased the cement facility in Dorado (San Juan), Puerto Rico, from Lehigh Hanson Inc. (a subsidiary of HeidelbergCement Group, Germany).
Acquisition (USA)	Eagle Materials	February 2017—As part of a corporate debt-reduction effort (announced in September 2016), CEMEX (Mexico) sold-off its cement facility in Fairborn (Xenia), Ohio, to Eagle Materials Inc.
Acquisition (USA)	CRH	November 2017—CRH (Ireland) also announced its purchase of Suwanee American Cement ("SAC") Co. (now a subsidiary of CRH Americas Materials) and its cement facilities in

Item	Firm	Event
		Sumterville and Branford, Florida, from Votorantim Cimentos (Brazil) and Anderson Colombia Co. Inc. (Colombia).
Acquisition (USA)	CRH	June 2018—CRH (Ireland) acquired Ash Grove Cement Co., the largest remaining domestically owned cement firm at that time. The sale involved eight cement plants, accounting for about 7 percent of total U.S. production capacity. This purchase (announced in September 2017) required the divestiture of the newly acquired cement facility in Trident, Montana.
Acquisition (USA)	GCC	July 2018—Groupo Cementos de Chihuahua (GCC) S.A.B. de C.V. (Mexico) purchased the cement facility in Trident, Montana from CRH (Ireland).
Acquisition (USA)	Eagle Materials	March 2020—Eagle Materials Inc. purchased the cement facility in Louisville, Kentucky, for $665 million from Kosmos Cement Co., a former joint venture between CEMEX S.A.B. de C.V. (Mexico) and Buzzi Unicem SpA (Italy).
Acquisition (USA)	St. Marys Cement	April 2021—St. Marys Cement (a subsidiary of Votorantim Cimentos S.A. (Brazil)) and McInnis Cement Inc. (a subsidiary of Caisse de dépôt et placement du Québec (“CDPQ,” Canada) merged their North American cement manufacturing and distribution operations, upon their respective parent firms receiving final joint-venture regulatory approval. St. Marys Cement’s U.S. facilities are in Charlevoix, Michigan, Detroit, Michigan, and Dixon, Illinois; and its Canadian cement facilities are in Bowmanville, Ontario, and St. Marys, Ontario. The McInnis Cement’s sole cement facility is in Port Daniel-Gascons, Quebec. Each joint-venture partner has cement distribution networks operating on both sides of the border.
Acquisition (USA)	Lehigh Hanson	June 2021—The U.S. Federal Trade Commission announced that Lehigh Cement Co. (a subsidiary of Lehigh Hanson Inc., itself a subsidiary of HeidelbergCement Group, Germany) abandoned its (September 2019) proposed $151 million acquisition of Keystone Cement Co. facility in Bath, Pennsylvania, from Giant Cement (a subsidiary of Elementia S.A.B. de C.V. (Mexico)).
Closure (USA)	Lehigh Hanson	April 2020—Lehigh Cement (a subsidiary of Lehigh Hanson, itself a subsidiary of HeidelbergCement Group, Germany) suspended operations at its cement facility in Glens Falls, New York due to COVID-19 epidemic-induced reductions of demand for cement.

Source: CalPortland, “CalPortland Announces Commissioning of New Finish Mill at Oro Grande Cement Plant,” news release, March 22, 2019, https://www.calportland.com/calportland-announces-commissioning-of-new-finish-mill-at-oro-grande-cement-

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USGS, "Cement," Mineral Commodity Summaries 2020, January 2020, p. 43;
USGS, "Cement," Mineral Commodity Summaries 2019, February 2019, p. 43;
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U.S. producers' trade and financial data

The Commission asked domestic interested parties to provide trade and financial data in their response to the notice of institution in the current five-year review.[63] Tables I-7 and I-8 present a compilation of the trade and financial data submitted from all responding U.S. and California producers in the original investigation and subsequent five-year reviews.

[63] Individual company trade and financial data are presented in app. B.

Table I-7
Gray portland cement and cement clinker: Trade and financial data submitted by producers in the United States, by period

Quantity in 1,000 short tons; value in 1,000 dollars; unit value in dollars per short tons; ratio is in percent

Gray portland cement

Item	Measure	1990	1999	2005	2010	2015	2021
Capacity	Quantity	***	***	***	***	***	***
Production	Quantity	***	***	***	***	***	***
Capacity utilization	Ratio	***	***	***	***	***	***
U.S. shipments	Quantity	***	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***	***

Table continued.

Table I-7 Continued
Gray portland cement and cement clinker: Trade and financial data submitted by producers in the United States, by period

Quantity in 1,000 short tons; value in 1,000 dollars; unit value in dollars per short tons; ratio is in percent

Cement clinker

Item	Measure	1990	1999	2005	2010	2015	2021
Capacity	Quantity	***	***	***	***	***	***
Production	Quantity	***	***	***	***	***	***
Capacity utilization	Ratio	***	***	***	***	***	***
U.S. shipments	Quantity	***	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***	***

Table continued.

Table I-7 Continued
Gray portland cement and cement clinker: Trade and financial data submitted by producers in the United States, by period

Quantity in 1,000 short tons; value in 1,000 dollars; unit value in dollars per short tons; ratio is in percent

Gray portland cement and cement clinker

Item	Measure	1990	1999	2005	2010	2015	2021
Capacity	Quantity	***	***	***	***	***	***
Production	Quantity	***	***	***	***	***	***
Capacity utilization	Ratio	***	***	***	***	***	***
U.S. shipments	Quantity	***	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***	***
Net sales	Value	***	***	***	***	***	***
COGS	Value	***	***	***	***	***	***
COGS to net sales	Ratio	***	***	***	***	***	***
Gross profit or (loss)	Value	***	***	***	***	***	***
SG&A expenses	Value	***	***	***	***	***	***
Operating income or (loss)	Value	***	***	***	***	***	***
Operating income or (loss) to net sales	Ratio	***	***	***	***	***	***

Source: For the years presented, data are compiled using data submitted in the Commission's original investigation (1990), full first five-year review (1999), expedited third five-year review (2005 and 2010), and expedited fourth five-year review (2015). For the year 2021, data are compiled using data submitted by domestic interested parties. Domestic interested parties' response to the notice of institution, July 1, 2022, exh. 1; Domestic interested parties' supplemental response to the notice of institution, July 14, 2022, exh. Supp-1.

Note: For a discussion of data coverage, please see "U.S. producers" section.

Note: Not applicable/not available values are shown as "---".

Table I-8
Gray portland cement and cement clinker: Trade and financial data submitted by producers in California, by period

Quantity in 1,000 short tons; value in 1,000 dollars; unit value in dollars per short tons; ratio is in percent

Gray portland cement

Item	Measure	1990	1999	2005	2010	2015	2021
Capacity	Quantity	***	***	***	***	***	***
Production	Quantity	***	***	***	***	***	***
Capacity utilization	Ratio	***	***	***	***	***	***
U.S. shipments	Quantity	***	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***	***

Table continued.

Table I-8 Continued
Gray portland cement and cement clinker: Trade and financial data submitted by producers in California, by period

Quantity in 1,000 short tons; value in 1,000 dollars; unit value in dollars per short tons; ratio is in percent

Cement clinker

Item	Measure	1990	1999	2005	2010	2015	2021
Capacity	Quantity	***	***	***	***	***	***
Production	Quantity	***	***	***	***	***	***
Capacity utilization	Ratio	***	***	***	***	***	***
U.S. shipments	Quantity	***	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***	***

Table continued.

Table I-8 Continued
Gray portland cement and cement clinker: Trade and financial data submitted by producers in California, by period

Quantity in 1,000 short tons; value in 1,000 dollars; unit value in dollars per short tons; ratio is in percent

Gray portland cement and cement clinker

Item	Measure	1990	1999	2005	2010	2015	2021
Capacity	Quantity	***	***	***	***	***	***
Production	Quantity	***	***	***	***	***	***
Capacity utilization	Ratio	***	***	***	***	***	***
U.S. shipments	Quantity	***	***	***	***	***	***
U.S. shipments	Value	***	***	***	***	***	***
U.S. shipments	Unit value	***	***	***	***	***	***
Net sales	Value	***	***	***	***	***	***
COGS	Value	***	***	***	***	***	***
COGS to net sales	Ratio	***	***	***	***	***	***
Gross profit or (loss)	Value	***	***	***	***	***	***
SG&A expenses	Value	***	***	***	***	***	***
Operating income or (loss)	Value	***	***	***	***	***	***
Operating income or (loss) to net sales	Ratio	***	***	***	***	***	***

Source: For the years presented, data are compiled using data submitted in the Commission's original investigation (1990), full first five-year review (1999), expedited third five-year review (2005 and 2010), and expedited fourth five-year review (2015). For the year 2021, data are compiled using data submitted by domestic interested parties. Domestic interested parties' response to the notice of institution, July 1, 2022, exh. 1; Domestic interested parties' supplemental response to the notice of institution, July 14, 2022, exh. Supp-1.

Note: For a discussion of data coverage, please see "U.S. producers" section.

Note: Not applicable/not available values are shown as "---".

Definitions of the domestic like product and domestic industry

The domestic like product is defined as the domestically produced product or products which are like, or in the absence of like, most similar in characteristics and uses with, the subject merchandise. The domestic industry is defined as the U.S. producers as a whole of the domestic like product, or those producers whose collective output of the domestic like product constitutes a major proportion of the total domestic production of the product. Under the related parties provision, the Commission may exclude a U.S. producer from the domestic industry for purposes of its injury determination if "appropriate circumstances" exist.[64]

In its original determination, its full first five-year review determination, and its expedited second, third, and fourth five-year review determinations, the Commission defined a single domestic like product consisting of gray portland cement and cement clinker coextensive with Commerce's scope. In its original determination, the Commission defined the domestic industry as producers of gray portland cement and cement clinker, including "grinding only" operations. The Commission also concluded in its original determination, its full first five-year review determination, and its expedited second, third, and fourth five-year review determinations that appropriate circumstances existed for a regional industry analysis. In the original investigation, the Commission considered whether the Southern California region, as proposed by the petitioners, or a larger region, the State of California, was the appropriate region. In its original determination, the Commission determined that both regions satisfied the market isolation criteria but found the more appropriate region for its analysis was Southern California; one Commissioner found the regional industry to consist of producers in the State of California. In its full first five-year review determination, the Commission found that there had been integration of the Northern and Southern regions of California and defined the appropriate region as the State of California. The Commission also determined that the record in its expedited second, third, and fourth five-year reviews supported a finding of a regional industry corresponding to the region of the State of California. For purposes of responding to the Commission's notice of institution in this fifth five-year review, interested parties were instructed to report the requested information separately on each of the following domestic industries: (1) Producers of gray portland cement and cement clinker, including "grinding only" operations, located in the State of California and (2) producers of gray portland cement and cement clinker, including "grinding only" operations, located in the United States as a whole.

[64] Section 771(4)(B) of the Tariff Act of 1930, 19 U.S.C. § 1677(4)(B).

The Commission considered in the original investigation whether domestic producers that either were owned by a foreign producer, imported subject product, or ground imported subject product should be excluded as related parties, and found that appropriate circumstances to do so did not exist.[65] Producers that were importers, or were related to exporters and/or importers of Japanese cement during the original investigation were: (1) Mitsubishi Cement Co., owned by Mitsubishi Mining & Cement Co., Ltd. of Japan; (2) California Portland Cement Co., owner of a 50 percent interest in CalMat Terminals, an importer of Japanese cement; (3) Riverside Cement Co., a joint venture partner with RIC Co., an importer of Japanese cement; and, (4) RMC Lonestar, owner of a 50 percent interest in Pacific Coast Cement Corp., an importer of Japanese cement.[66] As was the case in the original investigation, the Commission found in the first five-year review a number of related parties, either through ownership by Japanese firms or as importers of Japanese product, but concluded that appropriate circumstances did not exist to exclude any of the producers from the domestic industry.[67]

In the expedited second and third five-year reviews, the Commission found that Mitsubishi Cement Corp. ("Mitsubishi") and CalPortland were related parties, but that appropriate circumstances did not exist to exclude them from the domestic industry. In the expedited fourth five-year review, the domestic interested parties stated in their response to the Commission's notice of institution that Mitsubishi and CalPortland were wholly owned by Japanese producers of gray portland cement. The Commission found that the record lacked information to indicate whether Mitsubishi Materials Corp. and Taiheiyo Cement exported the subject merchandise during the period of review; therefore, the record was insufficient to establish that Mitsubishi and CalPortland were related parties. In light of this, the Commission defined the regional industry to include all producers of cement in California. In this review, the domestic interested parties reported that Mitsubishi Materials Corp., a Japanese producer, directly or indirectly controls Mitsubishi, which operates a plant at Lucerne Valley, California. Taiheiyo, a Japanese producer, directly or indirectly controls CalPortland, which operates cement plants at Mojave, California and at Oro Grande, California.[68]

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[65] Original publication, p. 13.

[66]Fourth review publication, p 26.

[67]Original publication, p. 13; First review publication, p. 8. The domestic interested parties did not argue for an exclusion.

[68] Domestic interested parties' response to the notice of institution, July 1, 2022, pp. 50-51. In March 2022, CalPortland entered into a definitive agreement to purchase certain cement and concrete assets from Martin Marietta, including the cement plant in Redding, California. The two parties "have also

(*continued*...)

U.S. importers

During the final phase of the original investigation, three U.S. importers accounted for *** U.S. imports from Japan of portland cement into the Southern California region.[69] No importer reported subject imports from Japan during the full first five-year review and no respondent interested parties provided responses to the Commission's notice of institution in any of the subsequent five-year reviews.[70] In fact, shortly after the imposition of the antidumping duty order, imports from Japan dropped to near zero.[71] In the expedited third and fourth five-year reviews, the domestic interested parties indicated that they were not aware of any U.S. importers of gray portland cement and cement clinker from Japan;[72] however, in its response to the Commission's notice of institution in this current fifth five-year review, the domestic interested parties provided a list of three potential U.S. importers of gray portland cement and clinker from Japan.[73] Import data presented in the original investigation and all subsequent five-year reviews are based on official Commerce statistics.[74]

U.S. imports

Tables I-9 and I-10 present the quantity, value, and unit value of imports of gray portland cement and cement clinker into the United States and California, respectively, from Japan as well as from the other top sources of imports.

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entered into preferred arrangements regarding the potential sale of" Martin Marietta's cement plant in Tehachapi, California, although no agreement on the sale has been reached to date. Domestic interested parties' response to the notice of institution, July 1, 2022, p. 51; "Completion of Purchase of Cement and Related Business Assets in the Western United States from Martin Marietta Materials, Inc.," Taiheiyo Cement News Letter, July 1, 2022, https://www.taiheiyo-cement.co.jp/english/summary/pdf/220701.pdf, retrieved August 23, 2022.

[69] Original confidential report, p. A-30.

[70] First review publication, p. I-41; Gray Portland Cement and Cement Clinker from Japan, Investigation No. 731-TA-461 (Second Review), USITC Publication 3856, May 2006 ("Second review publication"), p. I-3; Third review publication, p. I-3; Fourth review publication, p. I-2.

[71] First review publication, p. I-41.

[72] Third review publication, pp. I-32-33; Fourth review publication, p. I-32.

[73] Domestic interested parties' response to the notice of institution, July 1, 2002, exh. 1.

[74] Original publication, p. A-53; First review publication, pp. IV-1—IV-10; Second review publication, pp. IV-1—IV-4; Third review publication, table I-9; Fourth review publication, p. I-33.

Table I-9
Gray portland cement and cement clinker: U.S. imports, by source and period

Quantity in 1,000 short tons

U.S. imports from	Measure	2016	2017	2018	2019	2020	2021
Japan	Quantity	1	1	1	1	0	6
Canada	Quantity	4,585	4,462	5,522	5,407	5,191	5,468
China	Quantity	1,863	2,168	2,179	1,275	76	3
Greece	Quantity	2,733	2,559	2,028	2,075	1,856	2,425
Mexico	Quantity	166	451	897	1,237	1,693	1,750
South Korea	Quantity	836	712	749	828	1,034	1,033
Taiwan	Quantity	380	337	334	364	668	756
Turkey	Quantity	1,587	1,389	1,991	4,062	5,395	6,688
Vietnam	Quantity	---	---	---	135	1,230	1,834
All other sources	Quantity	1,212	1,417	1,219	835	525	2,333
Nonsubject sources	Quantity	13,363	13,495	14,918	16,218	17,667	22,291
All import sources	Quantity	13,364	13,496	14,919	16,219	17,667	22,297

Table continued.

Table I-9 Continued
Gray portland cement and cement clinker: U.S. imports, by source and period

Value in 1,000 dollars

U.S. imports from	Measure	2016	2017	2018	2019	2020	2021
Japan	Value	545	462	371	562	262	772
Canada	Value	320,538	400,524	495,556	493,137	459,037	494,343
China	Value	109,514	123,769	134,568	83,394	6,285	517
Greece	Value	147,311	133,157	117,066	121,387	104,479	123,714
Mexico	Value	18,843	37,667	75,697	100,717	131,479	145,022
South Korea	Value	44,597	35,400	40,072	46,933	59,377	67,379
Taiwan	Value	25,490	21,772	21,497	23,693	43,999	51,459
Turkey	Value	73,630	79,417	125,141	243,386	284,614	372,933
Vietnam	Value	---	---	---	6,273	71,521	140,623
All other sources	Value	67,888	112,044	116,792	86,355	65,624	169,009
Nonsubject sources	Value	807,811	943,750	1,126,391	1,205,276	1,226,414	1,565,000
All import sources	Value	808,356	944,212	1,126,762	1,205,838	1,226,675	1,565,772

Table continued.

Table I-9 Continued
Gray portland cement and cement clinker: U.S. imports, by source and period

Unit value in dollars per short ton

U.S. imports from	Measure	2016	2017	2018	2019	2020	2021
Japan	Unit value	606	533	601	864	737	121
Canada	Unit value	70	90	90	91	88	90
China	Unit value	59	57	62	65	83	201
Greece	Unit value	54	52	58	59	56	51
Mexico	Unit value	114	83	84	81	78	83
South Korea	Unit value	53	50	54	57	57	65
Taiwan	Unit value	67	65	64	65	66	68
Turkey	Unit value	46	57	63	60	53	56
Vietnam	Unit value	---	---	---	47	58	77
All other sources	Unit value	56	79	96	103	125	72
Nonsubject sources	Unit value	60	70	76	74	69	70
All import sources	Unit value	60	70	76	74	69	70

Source: Compiled from official Commerce statistics for HTS statistical reporting numbers 2523.10.0000, 2523.29.0000, and 2523.90.0000, accessed July 27, 2022. These data may be overstated as HTS statistical reporting numbers 2523.10.0000, 2523.29.0000, and 2523.90.0000 may contain products outside the scope of this review.

Note: Because of rounding, figure may not add to total shown.

Note: Data presented as “0” represent values greater than zero, but less than “0.5.” Zeroes, null values, and undefined calculations are suppressed and shown as “--“.

Table I-10
Gray portland cement and cement clinker: California imports, by source and period

Quantity in 1,000 short tons

U.S. imports from	Measure	2016	2017	2018	2019	2020	2021
Japan	Quantity	1	0	0	0	0	0
Canada	Quantity	---	---	---	---	---	---
China	Quantity	766	1,223	1,232	937	72	0
Greece	Quantity	0	---	---	---	---	---
Mexico	Quantity	---	0	0	0	1	1
South Korea	Quantity	0	0	---	---	115	218
Taiwan	Quantity	---	0	---	---	68	---
Turkey	Quantity	0	---	---	---	37	---
Vietnam	Quantity	---	---	---	0	0	9
All other sources	Quantity	0	0	0	0	0	565
Nonsubject sources	Quantity	766	1,362	1,584	1,455	2,145	2,891
All import sources	Quantity	767	1,362	1,584	1,455	2,145	2,891

Table continued.

Table I-10 Continued
Gray portland cement and cement clinker: California imports, by source and period

Value in 1,000 dollars

U.S. imports from	Measure	2016	2017	2018	2019	2020	2021
Japan	Value	333	145	133	114	61	89
Canada	Value	---	---	---	---	---	---
China	Value	42,452	70,063	77,032	59,211	5,465	120
Greece	Value	14	---	---	---	---	---
Mexico	Value	---	8,597	23,612	25,885	43,754	46,889
South Korea	Value	10	5	---	---	6,623	14,269
Taiwan	Value	---	5	---	---	4,307	---
Turkey	Value	14	---	---	---	2,966	---
Vietnam	Value	---	---	---	6,273	69,409	115,012
All other sources	Value	52	59	13	183	187	41,194
Nonsubject sources	Value	42,542	78,729	100,657	91,552	132,710	217,484
All import sources	Value	42,875	78,875	100,790	91,666	132,771	217,574

Table continued.

Table I-10 Continued
Gray portland cement and cement clinker: California imports, by source and period

Unit value in dollars per short ton

U.S. imports from	Measure	2016	2017	2018	2019	2020	2021
Japan	Unit value	625	720	915	1,366	1,378	1,623
Canada	Unit value	---	---	---	---	---	---
China	Unit value	55	57	63	63	76	244
Greece	Unit value	6,353	---	---	---	---	---
Mexico	Unit value	---	62	67	68	67	72
South Korea	Unit value	664	4,269	---	---	58	65
Taiwan	Unit value	---	203	---	---	64	---
Turkey	Unit value	238	---	---	---	80	---
Vietnam	Unit value	---	---	---	47	58	77
All other sources	Unit value	407	441	2,870	375	500	73
Nonsubject sources	Unit value	56	58	64	63	62	75
All import sources	Unit value	56	58	64	63	62	75

Source: Compiled from official Commerce statistics for HTS statistical reporting numbers 2523.10.0000, 2523.29.0000, and 2523.90.0000 entering into U.S. ports of entry in California, accessed July 27, 2022. These data may be overstated as HTS statistical reporting numbers 2523.10.0000, 2523.29.0000, and 2523.90.0000 may contain products outside the scope of this review.

Note: Because of rounding, figure may not add to total shown.

Note: Data presented as “0” represent values greater than zero, but less than “0.5.” Zeroes, null values, and undefined calculations are suppressed and shown as “--“.

Apparent U.S. consumption and market shares

Table I-11 presents data on U.S. producers' U.S. shipments, U.S. imports, apparent U.S. consumption, and market shares. Table I-12 presents data on California producers' U.S. shipments, U.S. imports into California, apparent U.S. consumption in California, and market shares in California.

Table I-11
Gray portland cement and cement clinker: Apparent U.S. consumption and market shares, by source and period

Quantity in 1,000 short tons; value in 1,000 dollars; shares in percent

Source	Measure	1990	1999	2005	2010	2015	2021
U.S. producers	Quantity	***	***	***	***	***	***
Japan	Quantity	1,939	33	4	1	2	6
Nonsubject sources	Quantity	9,067	26,346	2,601	6,653	11,026	22,291
All import sources	Quantity	11,006	26,379	2,605	6,654	11,028	22,297
Apparent U.S. consumption	Quantity	***	***	***	***	***	***
U.S. producers	Value	***	***	***	***	***	***
Japan	Value	45,821	1,873	1,734	767	1,029	772
Nonsubject sources	Value	53,034	1,146,309	2,045,088	471,654	722,004	1,565,000
All import sources	Value	98,855	1,148,182	2,046,822	472,421	723,033	1,565,772
Apparent U.S. consumption	Value	***	***	***	***	***	***
U.S. producers	Share of quantity	***	***	***	***	***	***
Japan	Share of quantity	***	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***	***
All import sources	Share of quantity	***	***	***	***	***	***
U.S. producers	Share of value	***	***	***	***	***	***
Japan	Share of value	***	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***	***
All import sources	Share of value	***	***	***	***	***	***

Source: For the years presented, data are compiled using data submitted in the Commission's original investigation (1990), full first five-year review (1999), expedited third five-year review (2005 and 2010), and expedited fourth five-year review (2015). For the year 2021, data are compiled using data submitted by domestic interested parties in response to the notice of institution in this review.

Note: Share of quantity is the share of apparent U.S. consumption by quantity in percent; share of value is the share of apparent U.S. consumption by value in percent.

Note: For a discussion of data coverage, please see "U.S. producers" and "U.S. importers" sections

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

Table I-12
Gray portland cement and cement clinker: Apparent California consumption and market shares, by source and period

Quantity in 1,000 short tons; value in 1,000 dollars; shares in percent

Source	Measure	1990	1999	2005	2010	2015	2021
U.S. producers	Quantity	***	***	***	***	***	***
Japan	Quantity	1,309	32	3	0	---	0
Nonsubject sources	Quantity	1,447	3,370	6,711	205	329	2,891
All import sources	Quantity	2,756	3,402	6,714	205	329	2,891
Apparent U.S. consumption	Quantity	***	***	***	***	***	***
U.S. producers	Value	***	***	***	***	***	***
Japan	Value	45,821	1,328	1,069	0	198	89
Nonsubject sources	Value	53,034	139,627	414,348	12,442	19,281	217,484
All import sources	Value	98,855	140,955	415,417	12,442	19,479	217,574
Apparent U.S. consumption	Value	***	***	***	***	***	***
U.S. producers	Share of quantity	***	***	***	***	***	***
Japan	Share of quantity	***	***	***	***	***	***
Nonsubject sources	Share of quantity	***	***	***	***	***	***
All import sources	Share of quantity	***	***	***	***	***	***
U.S. producers	Share of value	***	***	***	***	***	***
Japan	Share of value	***	***	***	***	***	***
Nonsubject sources	Share of value	***	***	***	***	***	***
All import sources	Share of value	***	***	***	***	***	***

Source: For the years presented, data are compiled using data submitted in the Commission's original investigation (1990), full first five-year review (1999), expedited third five-year review (2005 and 2010), and expedited fourth five-year review (2015). For the year 2021, data are compiled using data submitted by domestic interested parties in response to the notice of institution in this review.

Note: Share of quantity is the share of apparent U.S. consumption by quantity in percent; share of value is the share of apparent U.S. consumption by value in percent.

Note: For a discussion of data coverage, please see "U.S. producers" and "U.S. importers" sections

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

The industry in Japan

At the time of the original investigation concerning Japan, the Japanese cement and clinker industry consisted of 23 producers operating 41 plants. During the first five-year review, 19 Japanese producers of the subject merchandise operating 39 plants were identified by the Commission. Although the Commission did not receive responses from any respondent interested parties in the second, third, fourth, and current fifth five-year reviews, the domestic interested parties have noted that the Japan cement industry remains highly concentrated with "substantial" excess capacity and have provided the Commission with a list of 17 producers of gray portland cement and cement clinker in Japan in their responses to the notice of institution.[75]

During the original investigation and first review, Japan was third largest cement producing country in the world after China and the United States. As of 2007, Japan was the fourth largest cement producing country after China, India, and the United States. By 2010, Japan was the sixth largest hydraulic cement producing country after China, India, the United States (includes Puerto Rico), Turkey, and Brazil. Further, by 2013, Japan was the ninth largest hydraulic cement producing country.[76] World hydraulic cement production data gathered by the USGS are presented in table I-13, which shows that USGS recorded Japan as the tenth largest hydraulic cement producing country in 2018.

[75] Second review publication, pp. IV-4—IV-11; Third review publication, p. I-40; Fourth review publication, pp. I-37 – I-38; Domestic interested parties' response to the notice of institution, July 1, 2022, exh. 1.

[76] Fourth review publication, pp. I-38 – I-39.

Table I-13
Hydraulic cement: World production, by country, 2016–18

Quantity in 1,000 short tons

Country	2016	2017	2018
China	2,656,567	2,569,485	2,425,082
India	308,647	309,749	328,488
Vietnam	82,075	86,909	99,428
United States	93,865	95,679	95,900
Egypt	60,627	75,508	89,508
Indonesia	68,343	76,367	82,908
Turkey	83,117	88,793	79,966
Iran	60,627	60,627	63,934
South Korea	62,553	63,273	63,383
Japan	58,704	60,842	60,965
All other countries	1,039,462	1,043,261	1,074,793
Total	4,574,587	4,530,494	4,464,356

Source: U.S. Geological Survey ("USGS"), 2018 Minerals Yearbook, Cement (Advance Release), April 2022, pp. 16-30 – 16-32.

Note: United States includes Puerto Rico.

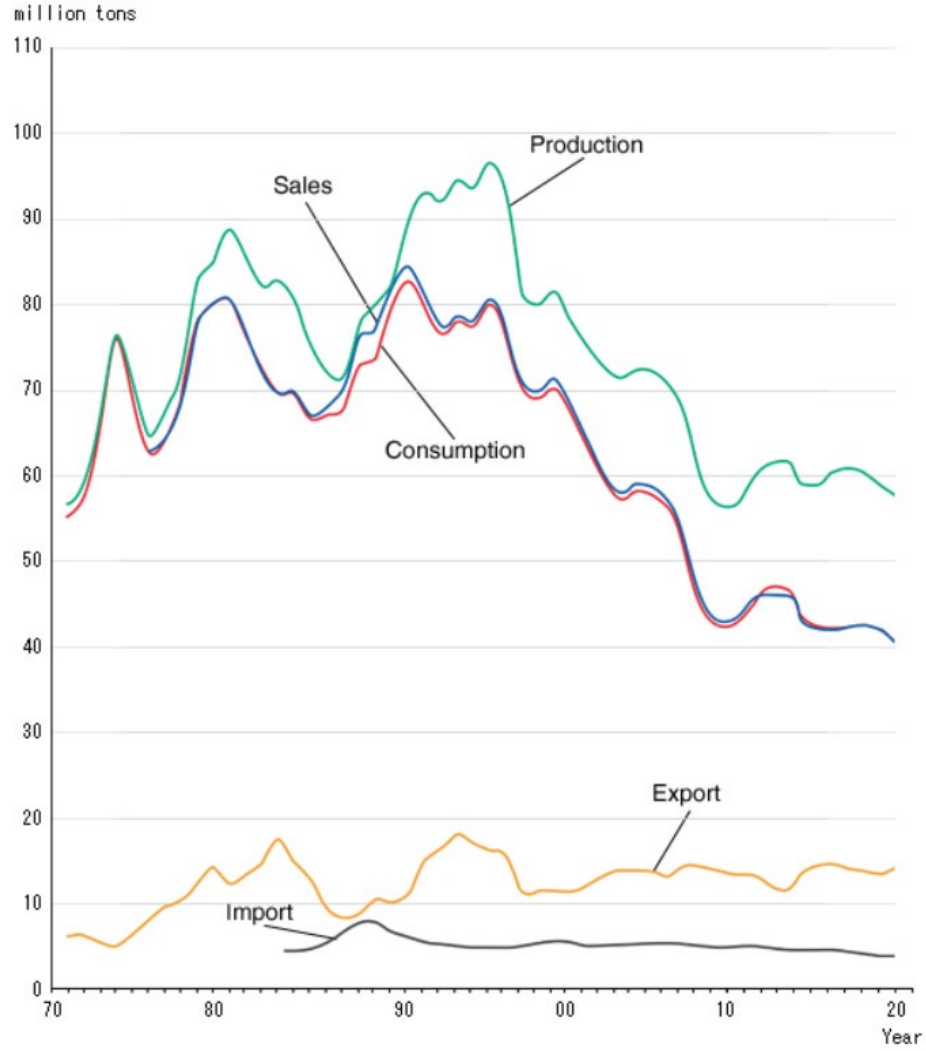
Note: United States production of portland and masonry cements only. Includes a small (less than 0.5-percent per year) component of double-counting where portland cement (not clinker) is consumed to make masonry cement; the precise amount of double-counting cannot be determined because of the involvement of portland cement stockpiles.

Note: World totals and estimated data are rounded to no more than three significant digits. Data are from a variety of sources, including the European Cement Association. Data may include clinker exports for some countries.

The Japan Cement Association ("JCA") provides annual information about trends in the Japanese cement industry from 1970 to 2020, albeit in graphic form. During 2016–20, the JCA reported fluctuating trends with overall declines in annual production, sales, and consumption quantities of cement in Japan (figure I-3). In contrast, Japan's cement quantities exported reportedly fluctuated for a slight overall decline, while its quantities imported continued to decline over this same period. However, Japan was a net exporter of cement during each year of 2016–20, as the annual reported quantities exported were approximately triple of those imported.[77]

[77] See also: Domestic interested parties' response to the notice of institution, July 1, 2022, pp. 43–44; exh. 25.

Figure I-3
Cement: Production, sales, consumption, exports, and imports in Japan, 1970–2020



Source: Japan Cement Association ("JCA"), "Statistics - Production, Sales, Consumption," no date, https://www.jcassoc.or.jp/cement/2eng/e_02a.html, retrieved July 20, 2022.

According to the JCA, annual cement kiln capacity in Japan declined from the approximately 70 million metric tons (77 million short tons) recorded in 2016 to approximately 54 million metric tons (60 million short tons) in 2020 (figure I-4). Annual cement kiln operating ratios (capacity utilization) rose from just below 90 percent in 2016 to a peak of approximately 94 percent in 2017 and then fell in successive years to just below 90 percent in 2020.[78] Domestic interested parties argued that if Japan's clinker production increased along with the industry's capacity from 53 million metric tons (58.4 million short tons) in 2020 to 54 million

[78] See also Domestic interested parties' response to the notice of institution, July 1, 2022, pp. 38–39; exh. 14.

metric tons (59.5 million short tons) in 2021,[79] then a 90 percent capacity utilization rate is equivalent to excess clinker production capacity of 5.4 million metric tons (5.95 million short tons) in 2021.[80]

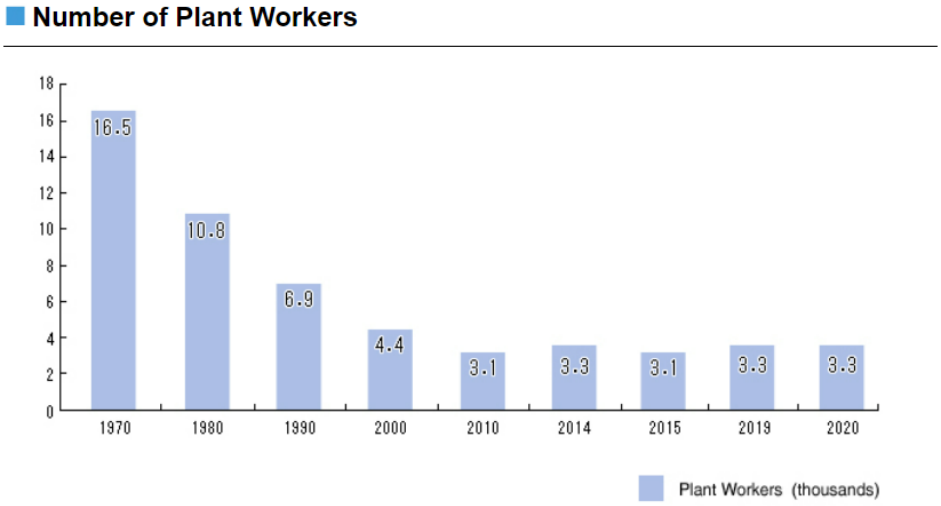
Figure I-4
Cement: Kiln capacity and kiln operating ratios in Japan, 1990–2020

Source: Japan Cement Association ("JCA"), "Statistics - Kiln Capacity & Kiln Operation Ratio," no date, https://www.jcassoc.or.jp/cement/2eng/e_02c.html, retrieved July 20, 2022.

The JCA reported flat employment in the cement industry in Japan during 2018 and 2020 with approximately 3,300 cement plant workers employed in both years, albeit up slightly (6.5 percent) above the 3,100 reported for 2015 (figure I-5).

[79] Domestic interested parties' response to the notice of institution, July 1, 2022, exh. 13, p. 2.
[80] Domestic interested parties' response to the notice of institution, July 1, 2022, pp. 38–39.

Figure I-5
Cement: Number of plant workers in Japan, 1970–2020



Source: Japan Cement Association ("JCA"), "Statistics - Number of Plant Workers," no date, https://www.jcassoc.or.jp/cement/2eng/e_02d.html, retrieved July 20, 2022.

According to Cement Net, 19 firms produced cement at 31 integrated facilities in Japan during 2010–20.[81] There are no stand-alone grinding or clinker mills operating in Japan.[82] Sumitomo Osaka Cement Co. undertook a $21 million capital investment during 2015–17 to more than double the annual production capacity at one of its four cement facilities. Having previously integrated their cement sales and logistics operations in 1998, Mitsubishi Materials Corp. and Ube Industries Inc. further integrated their respective cement manufacturing and other businesses into a new, equally owned joint venture in April 2022. Japanese cement producers have undertaken longstanding energy conservation and environmental protection measures efforts in response to prior pollution concerns and petroleum supply disruptions. They not only developed technologies to utilize wastes and byproducts as clinker raw materials and as energy substitutes, but also adopted alternative energy sources and energy savings measures, thereby reducing greenhouse gas emissions. The Japanese cement industry is also

[81] A Cement Net publication identified 19 cement producing firms in Japan during 2010–20, including Mitsubishi Materials Corp., Mitsubishi Cement Corp., Ube-Mitsubishi Cement Corp., and Sanyo White Cement Co. Ltd., but not Ube Industries Inc. CemNet, "Cement Plants Located in Japan," Global Cement Report, 14th ed., no date, https://www.cemnet.com/global-cement-report/country/japan, retrieved August 4, 2022.

The JCA identified 17 cement producing firms among its current membership, including Mitsubishi Materials Corp. and Ube Industries Inc., but not Mitsubishi Cement Corp., Ube-Mitsubishi Cement Corp., and Sanyo White Cement Co. Ltd. JCA, "JCA Member Companies," no date, https://www.jcassoc.or.jp/cement/2eng/e_03b.html, retrieved August 1, 2022.

[82] CemNet, "Cement Plants Located in Japan," Global Cement Report, 14th ed., no date, https://www.cemnet.com/global-cement-report/country/japan, retrieved August 4, 2022.

accelerating its own decarbonization efforts in response to stricter greenhouse gas emissions regulations, as the government declared in October 2020 the goal of attaining carbon neutrality by year 2050.[83]

Table I-14 presents events that have occurred in the Japanese industry since the last five-year review.[84]

Table I-14
Gray portland cement: Recent developments in the Japanese industry since 2015

Item	Firm	Event
Expansion	Sumitomo Osaka Cement	January 2017—Sumitomo Osaka Cement Co. anticipated completing upgrades to its cement facility in Susaki, Kochi Prefecture. This ¥2.6 billion ($21 million) capital investment (announced in August 2015) expanded the annual production capacity of this facility from 200,000 metric tons (220,462 short tons) to 500,000 metric tons (551,156 short tons).
Business integration	Mitsubishi Materials and Ube Industries	April 2022—Mitsubishi Materials Corp. and Ube Industries Inc. integrated their respective cement manufacturing, ready-mix concrete, limestone mining, energy, and construction materials businesses into a new, equally owned joint venture entity to be named "Mitsubishi-Ube Cement Corp." These two cement producers first announced conferring in early 2020, reportedly during a period of slowing demand and rising energy costs. The firms signed a letter of intent to commence integration negotiations in February 2020 and approved the definitive agreement in September 2020.They previously established an equally owned joint venture entity in 1998, "Ube-Mitsubishi Cement Corp.," to integrate their respective cement sales and logistics operations.

Source: CemNet, "Sumitomo Osaka to Expand Kochi Plant, Japan," Cement News, August 18, 2015, https://www.cemnet.com/News/story/157432/sumitomo-osaka-to-expand-kochi-plant-japan.html.
CemNet, "Mitsubishi Materials and Ube Industries on Track to Merge Cement Businesses in April 2022," Global Cement News, July 30, 2021, https://www.globalcement.com/news/item/12783-mitsubishi-materials-and-ube-industries-on-track-to-merge-cement-businesses-in-april-2022;
Mitsubishi Materials Corp., "Mitsubishi Materials and Ube Industries Sign Letter of Intent for Integration of Cement Businesses," news release, February 12, 2020, https://www.mmc.co.jp/corporate/en/news/2020/news20200212.pdf;
Ube Industries Inc., "Ube Industries and Mitsubishi Materials Announce Signing of Definitive Agreement and Company Split for Integration of Cement Businesses," news release, September 29, 2020, https://www.ube.co.jp/ube/en/news/2020/pdf/20200929_01_en.pdf.

[83] CemNet, "Japan: Securing Sustainability," Global Cement News, March 22, 2022, https://www.cemnet.com/Articles/story/172284/japan-securing-sustainability.html.

[84] There were no major developments in the Japanese industry since the continuation of the order identified by interested parties in the proceeding. Domestic interested parties' comments, August 15, 2022, p. 5.

Table I-15 presents export data for cement, a category that includes gray portland cement and cement clinker and out-of-scope products, from Japan (by export destination in descending order of quantity for 2021). As of 2020, Japan was the fourth largest cement exporting country in the world. Japan's shares of annual global cement exports fluctuated downward from 6.6 percent in 2017 to 5.7 percent 2020.[85]

Table I-15
Cement: Quantity of exports from Japan, by destination, 2017–21

Quantity in 1,000 short tons

Destination market	2017	2018	2019	2020	2021
Singapore	3,858	3,630	3,573	1,945	2,916
Australia	2,409	2,116	2,063	1,726	2,065
China	1	75	894	3,587	2,021
Hong Kong	1,953	1,577	1,155	1,526	1,818
New Zealand	567	546	556	570	883
Philippines	948	829	834	779	691
Korea, South	930	761	661	543	622
Chile	105	108	0	261	424
Peru	95	144	97	94	334
Taiwan	313	273	289	296	290
All other markets	1,958	1,681	1,254	747	560
All markets	13,139	11,740	11,376	12,073	12,623

Source: Global Trade Information Services Inc., Global Trade Atlas, HS subheadings 2523.10, 2523.29, and 2523.90, accessed July 20, 2022. These data may be overstated as HS subheadings 2523.29 and 2523.90 may contain products outside the scope of this review.

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

Third-country trade actions

Based on available information, gray portland cement and cement clinker from Japan has not been subject to other antidumping or countervailing duty investigations outside the United States. However, the Philippines imposed definitive general safeguard measures, effective September 16, 2019, on ordinary portland cement and blended (portland-pozzolan) cement originating in certain subject countries (including Japan) not otherwise specifically excluded from the investigation. The safeguard duties decline in each successive year of the

[85] Global Trade Information Services Inc., Global Trade Atlas, HS subheadings 2523.10, 2523.29, and 2523.90, accessed July 20, 2022. These data may be overstated as HS subheadings 2523.29 and 2523.90 may contain products outside the scope of this review. Some countries have not yet reported for 2021. See also table I-18 in the "The global market" section below.

three-year implementation period (table I-16).[86] The Cement Manufacturers Association of the Philippines ("CeMAP") reportedly sought an extension of the import safeguards beyond the implementation period from the Philippine Tariff Commission ("TC"). The TC announced a preliminary conference held on March 8, 2022.[87]

Table I-16
Cement: Trade actions in third-country markets

Values in Philippine pesos ("₱")

Third country market and subject product	Action and date	Order (rates)
Philippines: Type I (ordinary) portland cement and Type IP blended (portland-pozzolan) cement.	Definitive general safeguard measures imposed with a three-year implementation period, effective September 16, 2019.	**All subject countries including Japan:** First year—₱250 per metric ton or ₱10 per 40 kilogram bag. Second year—₱225 per metric ton or ₱9 per 40 kilogram bag. Third year—₱200 per metric ton or ₱8 per 40 kilogram bag.

Source: Domestic interested parties' response to the notice of institution, July 1, 2022, exh. 15.

The global market

Table I-17 presents global capacity data for cement clinker (by producer in descending order of quantity for 2021). China's cement industry accounted for more than one-half (52.6–54.1 percent) of the world's annual production capacity for cement clinker during 2017–21. Other leading producers with annual production capacity for cement clinker exceeding 80 million short tons included India, Turkey, Vietnam, Iran, Russia, and Indonesia. Together, the cement producers in these six nonsubject countries accounted for a combined 18.1–19.0 percent of global annual production capacity for cement clinker during 2017–21. By contrast, Japan accounted for only 1.4–1.5 percent during this period.

[86] Domestic interested parties' response to the notice of institution, July 1, 2022, pp. 39–40.
[87] Domestic interested parties' response to the notice of institution, July 1, 2022, p. 40; exh. 16.

Table I-17
Cement clinker: World capacity by leading countries, 2017–21

Quantity in million short tons

Producing country	2017	2018	2019	2020	2021
China	2,205	2,205	2,172	2,205	2,205
India	309	309	309	309	309
United States	118	114	114	110	110
Turkey	88	99	101	101	101
Vietnam	99	99	99	99	99
Iran	88	88	89	89	89
Russia	88	88	88	88	88
Indonesia	86	86	86	86	87
Brazil	66	66	66	66	66
South Korea	55	55	55	55	66
Japan	58	58	58	58	60
Egypt	53	53	53	53	53
All other countries	873	794	794	790	790
All countries	4,189	4,079	4,079	4,079	4,079

Source: U.S. Geological Survey ("USGS"), "Cement," Mineral Commodity Summaries 2022, January 2022, p. 45; "Cement," Mineral Commodity Summaries 2021, January 2021, p. 43; "Cement," Mineral Commodity Summaries 2020, January 2020, p. 43; "Cement," Mineral Commodity Summaries 2019, February 2019, p. 43; "Cement," Mineral Commodity Summaries 2018, January 2018, p. 43.

Note: United States includes Puerto Rico.

Note: Because of rounding, figures may not add to total shown.

China

Among cement producers worldwide, China is the largest with 2.2 billion short tons of clinker capacity in 2021 (table I-17), which amounted to more than one-half (54.1 percent) of the global recorded capacity total in that year. The Chinese industry consisted of 3,408 cement producing facilities (2,198 grinding units plus 1,210 clinker lines) in 2020, with combined annual cement production capacity totaling about 3.800 billion metric tons (4.189 billion short tons), according to the China Cement Association. Reducing China's excess cement production capacity is part of the 14th Five-Year Plan (2021–25), which includes reducing carbon dioxide intensity by 18 percent over this five-year planning period. An additional measure is a 2018 requirement to retire 1.25 metric tons (1.38 short tons) of outdated capacity for each metric ton (1.1 short tons) of new capacity to be constructed in nonenvironmentally sensitive areas. In December 2020, the Ministry of Industry and Information Technology's ("MIIT's") proposed a stricter requirement to retire 1.5 metric tons (1.6 short tons) of outdated capacity. China's cement production rose 2.5 percent to 2.377 billion metric tons (2.620 billion short tons) in

2020, from 2.330 billion metric tons (2.568 billion short tons) in 2019.[88] China shifted from a long-time net exporter to a net importer of cement and clinker in 2018, with imports sourced primarily from Vietnam, Thailand, and South Korea. The China Cement Industry Association ("CCIA") reportedly considered continued clinker imports from Southeast Asian countries with excess cement production capacity to continue impacting China's coastal markets.[89]

India

Cement producers in India together accounted for 309 million short tons of clinker capacity in 2021, second only to China, but only 7.6 percent of the global capacity total recorded in that year (table I-17). Low capacity utilization rates posed major concerns to India's cement producers for over a decade, arising from accumulated excessive production capacity combined with demand not meeting anticipated levels. India's cement production rose an estimated 15 percent to 333 million metric tons (367 million short tons) in 2021, but with annual production capacity of 550 million metric tons (606 million short tons), the capacity utilization rate was about 60 percent for that year. This rate is anticipated to continue at a similar level throughout 2022. Over the next three years (2022–24), an additional 100 million metric tons (110 million short tons) of capacity is estimated to enter service, taking the industry's total capacity to 650 million metric tons (716 million short tons).[90] Nevertheless, Indian cement producers continue to fund expansions despite existing overcapacity, with capital investments in ongoing cement plant projects totaling $1.81 billion. Key factors behind the confidence that overcapacity will abate include corporate consolidation, with rising shares for the top five producers, and rising energy costs and more restrictive limestone mining licenses deterring new entrants and driving out older facilities.[91]

Vietnam

Clinker production capacity among cement producers in Vietnam totaled 99 million short tons in 2021, which was 2.4 percent of the global capacity total recorded in that year (table I-17). According to another source, there are 90 cement production lines operating in Vietnam with a combined annual production capacity totaling 106.6 million metric tons (117.5

[88] Domestic interested parties' response to the notice of institution, July 1, 2022, pp. 41–42; exh. 20.
[89] Domestic interested parties' response to the notice of institution, July 1, 2022, p. 42; exh. 22, p. 9.8.
[90] Domestic interested parties' response to the notice of institution, July 1, 2022, pp. 42–43; exh. 23.
[91] Domestic interested parties' response to the notice of institution, July 1, 2022, p. 43; exh. 24.

million short tons) in 2021. Despite challenges posed by higher costs for input raw materials and production fuels, Vietnamese cement producers recorded a higher output growth rate in 2021 compared to the prior year but did not attain the anticipated profit levels. Growth of Vietnam's cement industry is considered dependent upon growing domestic cement consumption being enhanced by rising population and urbanization trends, along with continued national infrastructure expenditures. In 2021, Vietnam's total cement production output reached an estimated 103.21 million metric tons (113.77 million short tons) while domestic consumption was an estimated 62 million metric tons (68 million metric tons). Vietnam recorded increased exports of cement and clinker products in 2021, totaling about 42–45 million metric tons (46–50 million short tons), above the annual average of 30 million metric tons (33 million short tons) during 2018–20.[92] Vietnam also was the largest source of hydraulic cement and clinker imported into California ports in 2020 and 2021.[93]

Turkey

Although not included in the domestic interested parties' assessment of global supply conditions,[94] Turkey was the sixth-largest source of hydraulic cement and clinker imported into California ports in 2020.[95] Turkish clinker production capacity of 101 million short tons in 2021 was 2.5 percent of the global total, just ahead of what Vietnam recorded in that year (table I-17). In Turkey, domestic cement sales fell each successive year from 2017 to 2019, as the economy was adversely impacted in mid-2018 by sharp currency depreciation and rising interest rates and in first-quarter 2020 by the Covid-19 epidemic. Cement sales started recovering thereafter and continued growing into 2021, despite rising inflation rates and rising production costs. However, cement production overcapacity doubled from 20 million metric tons (22 million short tons) in 2019[96] to 40 million metric tons (44 million short tons) by year-end 2021. The president of the Turkish Cement Manufacturers Association attributed

[92] Domestic interested parties' response to the notice of institution, July 1, 2022, p. 52, n. 238; exhs. 19 and 28.

[93] Domestic interested parties' response to the notice of institution, July 1, 2022, p. 52, n. 238; exh. 7.

[94] Domestic interested parties' response to the notice of institution, July 1, 2022, pp. 52–53.

[95] Domestic interested parties' response to the notice of institution, July 1, 2022, p. 52, n. 238; exh. 7.

[96] David Perilli, "Update on Turkey, October 2021," Global Cement, October 6, 2021, https://www.globalcement.com/news/item/13101-update-on-turkey-october-2021; Global Cement, "Turkish Cement Production Rises in 2021," March 25, 2022, https://www.globalcement.com/news/item/13878-turkish-cement-production-rises-in-2021#:~:text=Turkey%3A%20Members%20of%20T%C3%BCrk%C3%A7imento%20produced,%2C%2023%25%20of%20total%20sales.

"contraction in domestic consumption during that period steered our companies toward exports."[97] Turkey's cement exports rose in each successive year from 2016 to 2020.[98]

Table I-18 presents global export data for cement, a category that includes gray portland cement and cement clinker and out-of-scope products, (by source in descending order of quantity for 2020). Vietnam was the world's largest exporter of cement during 2017–20.[99] Both Vietnam and Turkey reported successively larger annual export quantities over this period. China reported the world's largest exports of cement during 2016 but successively smaller quantities in subsequent years to become the world's fourteenth largest exporter in 2020.[100]

[97] Turkish Cement Manufacturers' Association ("Türk Çimento"), "Turkey has the Cheapest Cement in the World," news article, June 10, 2022, https://www.turkcimento.org.tr/en/news_detail/turkey-has-the-cheapest-cement-in-the-world.

[98] Global Trade Information Services ("GTIS") Inc., Global Trade Atlas, HS subheadings 2523.10, 2523.29, and 2523.90, accessed July 20, 2022.

[99] Vietnam's cement exports for 2021 were not yet available in the Global Trade Atlas database.

[100] China's reported exports declined from 19,412,000 short tons in 2016 to 3,345,000 short tons by 2020. Global Trade Information Services Inc., Global Trade Atlas, HS subheadings 2523.10, 2523.29, and 2523.90, accessed July 20, 2022.

Table I-18
Cement: Quantity of global exports by country and period, 2016–20

Quantity in 1,000 short tons

Exporting country	2016	2017	2018	2019	2020
Vietnam	14,492	20,325	30,883	34,940	39,657
Turkey	11,397	14,594	15,352	24,985	35,624
Thailand	14,976	14,267	16,458	15,962	15,039
Japan	12,727	13,139	11,740	11,376	12,073
Indonesia	2,243	3,710	6,993	7,993	10,611
Pakistan	6,235	4,479	6,450	7,186	8,423
Germany	7,146	7,268	7,492	7,555	6,753
Spain	9,813	9,212	7,845	6,046	6,095
South Korea	5,534	3,712	6,036	7,269	5,877
Saudi Arabia	913	202	4,057	7,220	5,392
All other exporters	106,875	100,304	111,320	81,639	65,621
All exporters	192,350	191,212	224,626	212,170	211,164

Source: Global Trade Information Services Inc., Global Trade Atlas, HS subheadings 2523.10, 2523.29, and 2523.90, accessed July 20, 2022. These data may be overstated as HS subheadings 2523.29 and 2523.90 may contain products outside the scope of this review.

Note: Data are sorted in descending order of quantity for 2020 as some countries have not yet reported for 2021.

Note: Because of rounding, figures may not add to total shown.

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
87 FR 33123, June 1, 2022	*Initiation of Five-Year (Sunset) Reviews*	https://www.govinfo.gov/content/pkg/FR-2022-06-01/pdf/2022-11764.pdf
87 FR 33210, June 1, 2022	*Gray Portland Cement and Cement Clinker From Japan; Institution of a Five-Year Review*	https://www.govinfo.gov/content/pkg/FR-2022-06-01/pdf/2022-11627.pdf

APPENDIX B

COMPANY-SPECIFIC DATA

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APPENDIX C

SUMMARY DATA COMPILED IN FULL FIRST FIVE-YEAR REVIEW

Table C-6
Portland cement: Summary data concerning CALIFORNIA, 1997-99, January-March 1999, and January-March 2000

(Quantity=1,000 short tons, value=1,000 dollars, unit values, unit labor costs, and unit expenses are per short ton; period changes=percent, except where noted)

Item	Reported data					Period changes			
				January-March					Jan.-Mar.
	1997	1998	1999	1999	2000	1997-99	1997-98	1998-99	1999-00
Regional consumption quantity:									
Amount	9,971	11,591	13,025	2,914	2,849	30.6	16.2	12.4	-2.2
Regional producers' share (1)	88.9	79.0	73.9	71.1	79.0	-15.0	-9.8	-5.1	8.0
Importers' share (1):									
Japan	0.0	0.1	0.2	1.1	1.3	0.2	0.1	0.1	0.2
Mexico	0.2	0.2	0.4	0.6	0.3	0.2	0.0	0.1	-0.3
Venezuela	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal	0.2	0.4	0.6	1.7	1.6	0.4	0.2	0.2	-0.1
Other sources	10.9	20.6	25.5	27.2	19.3	14.6	9.7	4.9	-7.9
Total imports	11.1	21.0	26.1	28.9	21.0	15.0	9.8	5.1	-8.0
U.S. imports into region from:									
Japan:									
Quantity	0	16	32	32	36	(2)	(2)	103.6	14.7
Value	0	702	1,328	1,328	1,324	(2)	(2)	89.2	-0.3
Unit value	(2)	$44.91	$41.73	$41.73	$36.29	(2)	(2)	-7.1	-13.0
Ending inventory quantity	(3)	(3)	(3)	(3)	(3)	(2)	(2)	(2)	(2)
Mexico:									
Quantity	21	29	49	19	10	135.5	37.0	71.9	-47.6
Value	846	996	1,809	714	333	113.7	17.7	81.6	-53.3
Unit value	$40.45	$34.74	$36.70	$37.99	$33.86	-9.3	-14.1	5.6	-10.9
Ending inventory quantity	(3)	(3)	(3)	(3)	(3)	(2)	(2)	(2)	(2)
Venezuela:									
Quantity	0	0	0	0	0	0.0	0.0	0.0	0.0
Value	0	0	0	0	0	0.0	0.0	0.0	0.0
Unit value	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Ending inventory quantity	(3)	(3)	(3)	(3)	(3)	(2)	(2)	(2)	(2)
Subtotal:									
Quantity	21	44	81	51	46	287.6	111.7	83.1	-8.5
Value	846	1,698	3,137	2,042	1,657	270.5	100.6	84.7	-18.8
Unit value	$40.45	$38.32	$38.67	$40.34	$35.77	-4.4	-5.3	0.9	-11.3
Ending inventory quantity	(3)	(3)	(3)	(3)	(3)	(2)	(2)	(2)	(2)
Other sources:									
Quantity	1,089	2,387	3,321	792	551	205.0	119.2	39.2	-30.5
Value	54,454	106,391	137,818	34,692	23,461	153.1	95.4	29.5	-32.4
Unit value	$50.01	$44.58	$41.50	$43.79	$42.60	-17.0	-10.9	-6.9	-2.7
Ending inventory quantity	(3)	(3)	(3)	(3)	(3)	(2)	(2)	(2)	(2)
All sources:									
Quantity	1,110	2,431	3,402	843	597	206.6	119.0	40.0	-29.2
Value	55,301	108,089	140,955	36,733	25,118	154.9	95.5	30.4	-31.6
Unit value	$49.83	$44.47	$41.43	$43.58	$42.07	-16.9	-10.8	-6.8	-3.5
Ending inventory quantity	(3)	(3)	(3)	(3)	(3)	(2)	(2)	(2)	(2)

Table continued on next page.

Table C-6--Continued
Portland cement: Summary data concerning CALIFORNIA, 1997-99, January-March 1999, and January-March 2000

(Quantity=1,000 short tons, value=1,000 dollars, unit values, unit labor costs, and unit expenses are per short ton; period changes=percent, except where noted)

Item	Reported data			January-March		Period changes			
	1997	1998	1999	1999	2000	1997-99	1997-98	1998-99	Jan.-Mar. 1999-00
U.S. regional producers':									
Average capacity quantity	11,616	11,659	11,829	2,800	2,818	1.8	0.4	1.5	0.6
Production quantity	10,979	10,889	11,302	2,441	2,518	2.9	-0.8	3.8	3.2
Capacity utilization (1)	94.5	93.4	95.5	87.2	89.4	1.0	-1.1	2.2	2.2
U.S. shipments within region:									
Quantity	8,861	9,160	9,623	2,071	2,252	8.6	3.4	5.0	8.7
Value	554,476	632,446	690,878	144,606	155,945	24.6	14.1	9.2	7.8
Unit value	$62.57	$69.04	$71.80	$69.82	$69.25	14.7	10.3	4.0	-0.8
U.S. shipments outside region:									
Quantity	2,231	1,721	1,591	408	376	-28.7	-22.9	-7.6	-7.8
Value	134,682	110,568	94,851	25,780	20,823	-29.6	-17.9	-14.2	-19.2
Unit value	$60.36	$64.23	$59.61	$63.16	$55.32	-1.2	6.4	-7.2	-12.4
Export shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	314	331	413	309	309	31.5	5.4	24.8	0.0
Inventories/production (1)	2.9	3.0	3.7	3.2	3.1	0.8	0.2	0.6	-0.1
Production workers	956	994	994	992	1,000	4.0	4.0	0.0	0.8
Hours worked (1,000s)	2,225	2,250	2,300	584	586	3.4	1.1	2.2	0.3
Wages paid ($1,000s)	51,565	55,509	58,168	14,453	14,995	12.8	7.6	4.8	3.8
Hourly wages	$23.18	$24.67	$25.29	$24.74	$25.58	9.1	6.5	2.5	3.4
Productivity (tons per hour)	4.9	4.8	4.9	4.2	4.3	-0.4	-1.9	1.5	2.8
Unit labor costs	$4.70	$5.10	$5.15	$5.92	$5.95	9.6	8.5	1.0	0.6
Net sales (4):									
Quantity	11,454	11,366	11,894	2,584	2,804	3.8	-0.8	4.6	8.5
Value	706,221	768,570	816,605	175,210	184,828	15.6	8.8	6.2	5.5
Unit value	$61.66	$67.62	$68.66	$67.81	$65.92	11.4	9.7	1.5	-2.8
Cost of goods sold (COGS)	493,008	506,534	528,215	135,673	138,437	7.1	2.7	4.3	2.0
Gross profit or (loss)	213,213	262,036	288,390	39,537	46,391	35.3	22.9	10.1	17.3
SG&A expenses	49,991	54,974	57,975	14,493	14,956	16.0	10.0	5.5	3.2
Operating income or (loss)	163,222	207,062	230,415	25,044	31,435	41.2	26.9	11.3	25.5
Capital expenditures	59,872	51,792	103,949	21,370	36,974	73.6	-13.5	100.7	73.0
Unit COGS	$43.04	$44.57	$44.41	$52.51	$49.37	3.2	3.5	-0.3	-6.0
Unit SG&A expenses	$4.36	$4.84	$4.87	$5.61	$5.33	11.7	10.8	0.8	-4.9
Unit operating income or (loss)	$14.25	$18.22	$19.37	$9.69	$11.21	35.9	27.8	6.3	15.7
COGS/sales (1)	69.8	65.9	64.7	77.4	74.9	-5.1	-3.9	-1.2	-2.5
Operating income or (loss)/ sales (1)	23.1	26.9	28.2	14.3	17.0	5.1	3.8	1.3	2.7

(1) "Reported data" are in percent and "period changes" are in percentage points.
(2) Not applicable.
(3) Not available.
(4) Financial data reported for Portland cement and cement clinker.

Note.--Financial data are reported on a fiscal year basis and may not necessarily be comparable to data reported on a calendar year basis. Because of rounding, figures may not add to the totals shown. Unit values and shares are calculated from the unrounded figures.

Source: Compiled from data submitted in response to Commission questionnaires, official Commerce statistics, and data from the USGS.

APPENDIX D

PURCHASER QUESTIONNAIRE RESPONSES

As part of their response to the notice of institution, interested parties were asked to provide a list of three to five leading purchasers in the U.S. market for the domestic like product. A response was received from domestic interested parties and it provided emails for the following five firms as top purchasers of gray portland cement and cement clinker: ***. Purchaser questionnaires were sent to these five firms and two firms (***) provided responses, which are presented below.

1. Have there been any significant changes in the supply and demand conditions for gray portland cement and cement clinker that have occurred in the United States or in the market for gray portland cement and cement clinker in Japan since January 1, 2016?

Purchaser	Yes / No	Changes that have occurred
***	***	***
***	***	***

2. Do you anticipate any significant changes in the supply and demand conditions for gray portland cement and cement clinker in the United States or in the market for gray portland cement and cement clinker in Japan within a reasonably foreseeable time?

Purchaser	Yes / No	Anticipated changes
***	***	***
***	***	***