GRAY PORTLAND CEMENT AND CEMENT CLINKER FROM MEXICO

Determination of the Commission in Investigation No. 731–TA–451 (Final) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation

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United States International Trade Commission
Washington, DC 20436

UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMISSIONERS

Anne E. Brunsdale, Acting Chairman
Seeley G. Lodwick
David B. Rohr
Don E. Newquist

Staff assigned:

Jim McClure, Investigator
Linda White, Commodity-Industry Analyst
Cathy DeFilippo, Economist
Chand Mehta, Accountant/Financial Analyst
Judith Czako, Attorney
Katherine Jones, Attorney

Robert Carpenter, Supervisory Investigator

Address all communications to
Kenneth R. Mason, Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

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Note.--Information that would reveal the confidential business operations of individual firms may not be published and therefore has been deleted from the report. Deletions are indicated by asterisks.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-451 (Final)

GRAY PORTLAND CEMENT AND CEMENT CLINKER FROM MEXICO

Determination

On the basis of the record[1] developed in the subject investigation, the Commission determines,[2] [3] pursuant to section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the act), that an industry in the United States is materially injured by reason of imports from Mexico of gray portland cement and cement clinker, provided for in subheadings 2523.10.00, 2523.29.00, and 2523.90.00 of the Harmonized Tariff Schedule of the United States (previously under item 511.14 of the former Tariff Schedules of the United States), that have been found by the Department of Commerce to be sold in the United States at less than fair value (LTFV).

Background

The Commission instituted this investigation effective April 6, 1990, following a preliminary determination by the Department of Commerce that imports of gray portland cement and cement clinker from Mexico were being sold at LTFV within the meaning of section 733(a) of the act (19 U.S.C. § 1673b(a)). Notice of the institution of the Commission's investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal

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

[2] Commissioner Rohr dissenting.

[3] Commissioner Newquist did not participate.

Register of May 3, 1990 (55 F.R. 18683). The hearing was held in Washington, DC, on July 19, 1990, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF ACTING CHAIRMAN ANNE E. BRUNSDALE [1]

Gray Portland Cement and Cement Clinker from Mexico
Inv. No. 731-TA-451 (Final)

August 23, 1990

On the basis of the information gathered in this investigation, I determine that a domestic industry in the United States is materially injured by reason of imports of gray portland cement and cement clinker from Mexico that are sold in the United States at less than fair value (LTFV). [2] [3]

Like Product

In determining whether a U.S. industry is materially injured or is threatened with material injury by reason of the subject imports, the Commission must first determine the "domestic industry" and concomitantly the "like product." Section 771(4)(A) of the Tariff Act of 1930 defines the relevant domestic industry as the "domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product . . . ." [4] Like product is defined as "a product

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[1] Commissioner Lodwick joins in the discussion of like product, domestic industry, and cumulation, but does not join in the remainder of this opinion. See Views of Commissioner Seeley G. Lodwick, infra.

[2] On July 18, 1990, the Department of Commerce issued a final determination finding that imports of gray portland cement from Mexico were being sold at LTFV. 55 Fed. Reg. 29244 (1990).

[3] Material retardation is not an issue in this investigation and will not be discussed.

[4] 19 U.S.C. § 1677(4)(A).

which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation . . . ." [5]

In this investigation, the petitioners alleged, and no party disputed, that gray portland cement (cement) and cement clinker comprise a single like product. In the preliminary investigation, the Commission found cement and cement clinker to be a single like product, as it did in an earlier investigation involving cement. [6] I see nothing on the record in this final investigation that suggests a different result would be appropriate. I therefore determine that cement and cement clinker constitute the like product.

Domestic Industry

In this investigation, three issues arose with respect to the definition of the domestic industry. These were (1) the delineation of the appropriate regional industry, (2) whether grinding clinker constitutes a "minor finishing operation," and (3) the issue of related parties.

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[5] 19 U.S.C. § 1677(10).

[6] Gray Portland Cement and Cement Clinker from Mexico, Inv. No. 731-TA-451 (Preliminary), USITC Pub. 2235 (1989) (Mexican Cement). In the only previous investigation involving imports of both cement and cement clinker in which like product was a contested issue, Portland Hydraulic Cement and Cement Clinker from Colombia, France, Greece, Japan, Mexico, the Republic of Korea, Spain and Venezuela, Inv. No. 731-TA-356-363 (Preliminary), USITC Pub. 1925 (1986) (1986 Cement), respondent parties argued that cement and cement clinker are separate like products. The Commission found otherwise, concluding that they are a single like product.

Regional Industry. Both parties agreed that a regional industry analysis is appropriate in this case but differed as to the appropriate boundaries of the region. In its preliminary determination, the Commission tentatively concluded that the appropriate region was a southern-tier region consisting of California, Texas, Arizona, New Mexico, Alabama, Louisiana, Mississippi and Florida. It stated, however, that the issue of the appropriate boundaries would be revisited in any final investigation. [7]

Petitioners made two alternative regional industry arguments in this investigation. First, they urged the Commission to consider the Southwest (consisting of Texas, Arizona, and New Mexico), Florida, and southern California as three distinct regional industries. [8] If the Commission should decline to consider these three areas as separate regional industries, petitioners contended the southern-tier region used in the preliminary investigation should be modified to exclude northern California and the inland counties of Louisiana,

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[7] Mexican Cement, at 8-9.

[8] They contended that the two statutory criteria of "shipments in" and "shipments out" of the region independently are satisfied for each of the three regions and that the "concentration of imports" criterion is also met in each region because the import penetration in each region is clearly higher than in the rest of the United States. They argued that if the Commission determines that any one of the three regions is materially injured or threatened with material injury, the Commission should make an affirmative determination. Petitioners' Pre-hearing Legal brief on Industry Definition at 4-34.

Mississippi, and Alabama. [9] Respondents Cemex, S.A., and the Cement Free Trade Association maintained that the southern-tier region set forth by the Commission in the preliminary investigation defined the appropriate regional industry. [10]

The regional industries section of the statute provides that:

> 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 --
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> (i) the producers within such market sell all or almost all of their production of the like product in question in that market, and
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> (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.
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> 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 like product constitutes a major proportion of the total domestic production of that product, is not injured, if there is a concentration of subsidized or dumped imports 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

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[9] Tr. at 9.

[10] Tr. at 155-156. Respondent Apasco argued that, at a minimum, the appropriate region should include the southern-tier. Apasco pointed out that "Mexican imports also enter U.S. markets through ports all along the eastern and western seaboards. . . . Thus, while the southern-tier region preliminarily defined by the Commission appears to provide a sufficient basis for analysis, any alternative region must, at a minimum, expand rather than contract that region." Pre-hearing Brief of Apasco at 13.

retarded, by reason of the subsidized or dumped imports.[11]

The Commission has considered regional industry analysis as discretionary, based on the language "appropriate circumstances" and "may be treated" found in section 771(4)(C).[12] The Court of International Trade, however, has cautioned against "[a]rbitrary or free handed sculpting of regional markets."[13]

As noted above, neither party disputed the appropriateness of regional industry analysis in this case. In addition, in earlier cement cases the Commission has found that "appropriate circumstances" exist for a regional industry analysis of domestic cement production.[14] Gray portland cement and clinker is

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[11] 19 U.S.C. § 1677(4)(C).

[12] See e.g., Mexican Cement at 6; Frozen French Fried Potatoes from Canada, Inv. No. 731-TA-93 (Preliminary), USITC Pub. 1259 (1982) at 6; Fall Harvested Round White Potatoes from Canada, Inv. No. 731-TA-124 (Final), USITC Pub. 1463 (1983) at 7; Rock Salt from Canada, Inv. No. 731-TA-239 (Final), USITC Pub. 1709 (1986) at 5; Certain Welded Carbon Steel Pipes and Tubes from Taiwan, Inv. No. 731-TA-349 (Final), USITC Pub. 1994 (July 1987).

[13] See Atlantic Sugar, Ltd. v. United States, 2 CIT ___, 519 F. Supp. 916, 920 (Ct. Int'l Trade 1981); See also Portland Hydraulic Cement from Australia and Japan, Inv. Nos. 731-TA-108 and 109 (Preliminary), USITC Pub. 1310 at 11 n.30 (1982). The Commission has been concerned that the regional analysis be applied only in appropriate circumstances in order to prevent imposing duties on imports sold in the entire national market in cases in which the detrimental impact of the imports is limited to a small segment of that market. The Commission has defined appropriate circumstances on several occasions, focusing on whether a separate geographic market exists and whether the market is isolated and insular. See Cut-to-Length Carbon Steel Plate from the Republic of Germany, Inv. No. 731-TA-147 (Preliminary Remand), USITC Pub. 1550 (1984) at 8; Rock Salt from Canada, Inv. No. 731-TA-239 (Final), USITC Pub. 1798 (1986).

[14] In all but one of the Commission's prior investigations of cement, a regional analysis was used. See, e.g., Portland

(continued...)

necessarily sold in regional markets because it has a low value-to-weight ratio and is fungible. Thus, high transportation costs make the areas in which cement is produced necessarily isolated and insular. I therefore determine that a regional industry analysis is appropriate.

In arguing that the Southwest, Florida, and southern California markets constitute three distinct regional industries, petitioners asserted that producers in each of these three regions satisfy the statutory criteria for regional industry analysis. They also contended, as they did in the Japan Cement case, that the Commission's traditional analysis for defining the appropriate region for regional industry analysis is incorrect as a matter of law. [15]

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[14] (...continued)
Hydraulic Cement from Australia and Japan, Inv. Nos. 731-TA-108 and 109 (Preliminary), USITC Pub. 1310 (1982). In the 1986 Cement case, the regional industry issue was not raised by the parties. The petitioner in that case noted that cement was produced and sold in a series of regional markets, but argued that imports were injuring producers in all of the regional markets and therefore injury could be assessed on a national basis.

[15] Petitioners argued first, that the Commission erred in the past by considering the concentration of imports in delimiting the region. According to petitioners, only the two market isolation factors, i.e., that producers within the region sell all or almost all of their production in the region and that demand in the region is not supplied to any substantial degree by producers outside the region, are relevant to determining whether a regional industry analysis is appropriate. Thus, the concentration of imports is irrelevant to defining the boundaries of the regional industry and is to be considered only in determining whether the regional industry, as defined by the market isolation factors, is materially injured or threatened with material injury. Second, petitioners claimed that the Commission has erred in assessing concentration of imports by
(continued...)

Respondents took issue with petitioners' interpretation of the regional industry provision, asserting that such an approach, if adopted by the Commission, would lead to absurd results because, given the highly local nature of cement production and sales, it would be likely that a large number of areas, including areas where no Mexican imports were marketed, would satisfy the two statutory criteria. [16] They argued that none of petitioners' three proposed areas qualifies as a proper regional industry because Mexican imports are not concentrated in any of the suggested markets. [17]

I decline to adopt petitioners' three-separate-regions approach for two reasons. First, as evidenced by their pre-hearing brief and their testimony at the hearing, petitioners appear to have abandoned their three regional industries argument. [18] Second, I find that Mexican imports into each of the three regions are not sufficiently concentrated, based on an examination of the percentage of all Mexican imports being sold in each of the proposed regions.

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[15] (...continued)
calculating the percentage of total imports subject to investigation entered into the region, rather than by comparing the import penetration level in the region to the import penetration level outside of the region. Finally, if the two statutory criteria determining market isolation are met, petitioners asserted appropriate circumstances exist to conduct a regional industry analysis and the Commission has no further discretion to determine otherwise.

[16] Pre-hearing Brief of Respondents Cemex, S.A., and The Cement Free Trade Association at 17.

[17] Id. at 19.

[18] Petitioners' Pre-hearing Legal Brief at 12; Tr. at 50-51.

Based on the legislative history cited by petitioners, [19] I believe that it may be appropriate in some circumstances to find that the requisite level of concentration exists even though the quantity of the subject imports being sold outside of the proposed regional market would cause the proposed region to fail the Commission's traditional test. Such a finding would be based on the relative levels of import penetration. However, I further believe that such circumstances should only be found to exist in exceptional circumstances. To allow a higher level of import penetration to justify the use of regional industry analysis in general would result in the imposition of antidumping duties on imports sold in the entire national market when no material injury has been shown in regions where a significant quantity of the imports are sold.

It might be appropriate, for example, to point to a high level of import penetration as justifying a regional market in a case where a small isolated market received a large share of the subject imports, e.g. 55 percent, while the remainder of the

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[19] The Senate Report on the 1979 Act states, in pertinent part:

> the requisite concentration will be found to exist in at least those cases where the ratio of the subsidized, or less-than-fair value, imports to consumption of the imports and domestically produced like product is clearly higher in the relevant regional market than in the rest of the U.S. market.

S. Rep. 249, 96th Cong., 1st Sess. (1979) at 73. While the legislative history on this provision contained in the House Report is somewhat different, both reports appear to support the conclusion that it is appropriate for the Commission to examine concentration in this way, as well as in the more traditional manner.

imports were spread evenly around the rest of the country. In such a case, the small regional market could be feeling a substantial impact from the imports despite the fact that it does not meet the Commission's traditional test, while the imports are not a significant part of the market anywhere else in the country.

I do not believe, however, that these circumstances exist in the present case. Each of the three proposed regions accounts for a substantial proportion of Mexican imports. Further, Mexican imports account for a significant share of total consumption in each of the regions. It would thus be inappropriate to base an affirmative finding on injury to one of these regions without considering the effects on other areas receiving the imports. [20]

In arguing for an alternative southern-tier region, petitioners contended that the Commission should modify the southern-tier region to exclude northern California and the inland counties of Louisiana, Mississippi, and Alabama. [21] They agreed with respondents that both the southern-tier and alternative southern-tier satisfy the first two criteria for regional industry analysis, the "shipments in" and "shipments out" criteria, but argued that a consistently higher percentage of production remained in their proposed alternative region than in the southern-tier region. They also asserted that a smaller

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[20] See Mexican Cement Report at A-12.

[21] Tr. at 9; Petitioners' Pre-hearing Brief at 13.

amount of consumption in the alternative region was supplied by producers outside the region, thus making the alternative southern-tier region more isolated and insular than the southern-tier region.

Respondents maintained that the southern-tier region is the appropriate region in this case. They argued that in determining the appropriate region, the Commission should look to where the imports are marketed, the location of domestic producers that might be affected by the subject imports, and indicia of insularity, such as shipment patterns. [22] In their view, petitioners' proposed regional industries amounted to "free handed sculpting." They also asserted that excluding significant production centers that compete with imports will create a distorted and misleading picture of the effect of imports.

Petitioners urged the Commission not to include northern California in the region because there is little commerce in cement between southern California and northern California, [23] while respondents urged the opposite view, that northern California be included in the region, because Mexican imports are

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[22] Pre-hearing Brief on Behalf of Respondents Cemex, S.A. and The Cement Free Trade Association at p. 2.

[23] They state that very little cement produced in southern California is sold in northern California, and virtually no cement produced in northern California is sold in southern California. Northern California producers serve primarily customers in the San Francisco Bay area and Sacramento, while southern California producers are clustered around Los Angeles and primarily serve customers in that market. Petitioners' Pre-hearing Brief at 15-16.

marketed in both northern and southern California. [24] Petitioners also argued that the inland counties of the Gulf states should be excluded from the region because the high cost of transporting cement makes it relatively unfeasible for coastal area producers and importers to serve inland markets and vice versa. They claimed that the one producer serving the coastal counties of Louisiana, Mississippi, and Alabama (Ideal) does not participate in the same cement market as do producers serving the inland portions of those states. They also pointed out that producers in northern Alabama and Mississippi reported less than 10 percent of their aggregate shipments going into the alternate region. Petitioners also noted that Mexican imports into

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[24] Respondents also stated that the three northern California cement plants represent significant production volumes of cement. In addition, shipping patterns confirm, they asserted, that the northern and southern portions of the California cement industry are linked, because between 5 and 10 percent of southern California production was shipped to northern California during the period of investigation, and a significant percentage of northern California consumption was supplied by southern California. Pre-hearing Brief of Respondents Cemex and The Cement Free Trade Association at 11. They further argued that San Francisco ranks sixth among the Customs districts in the southern tier in terms of share of Mexican imports into the region as well as share of U.S. imports of Mexican cement and that imports into Northern California in 1989 constituted 33 percent of total Mexican imports into the state. In addition, they noted that a number of domestic producers own plants in both northern and southern California. Finally, they argued that because prices for cement in northern and southern California are closely correlated, the two areas are linked. Pre-hearing Brief of Respondents Cemex, S.A. and The Cement Free Trade Association at 12.

Louisiana generally are not shipped more than 100 miles from the import terminal. [25]

In reply, respondents advanced three reasons for not excluding the inland counties of the Gulf states. First, Ideal sold cement produced from Mexican clinker throughout Mississippi, Louisiana, and Alabama, including the northern areas of all those states. Second, the northern Gulf states are also large cement producing areas. Third, shipping patterns demonstrate that substantial links exist between the northern and southern portions of the Gulf states.

I agree with the parties that both the southern-tier and alternative southern-tier regions appear to meet the requirements that a regional industry be isolated and insular. With respect to the statutory requirement that producers within a region sell "all or almost all" of their production of the like product within the region, the share of within-region shipments of cement was between 89 and 91 percent for producers in the southern-tier region during the period of investigation and ranged between 90 and 93 percent for the alternative southern-tier region. [26] Based upon prior Commission practice, the level of regional

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[25] Petitioners' Pre-hearing Legal Brief on Industry Definition at 38.

[26] Report at A-13. This is not surprising given the fact that, due to high transportation costs, 94 percent of portland cement shipments are to customers within 300 miles of the production site. Report at A-12.

production sold in each of the two areas appears to meet the statutory test. [27]

Both the southern-tier and the alternative southern-tier regions also meet the statutory requirement that demand within the region not be supplied to any substantial degree by producers located elsewhere in the United States. [28] For the period 1986-1989, the portion of consumption supplied by out-of-region suppliers averaged approximately 8.0 percent for the southern-tier region and approximately 8.3 percent for the alternative

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[27] See, e.g., Sugars and Sirups from Canada, Inv. No. 731-TA-3 (Final) USITC Pub. 1047 (1980) at 8 (96% found to be sufficient); Frozen French Fried Potatoes from Canada, Inv. No. 731-TA-93 (Preliminary), USITC Pub. 1259 (1982) at 7 (66% found not to be sufficient); Portland Hydraulic Cement from Australia and Japan (Final), Inv. Nos. 731-TA-108 and 109 (Preliminary) USITC Pub. 1310 (1982) at 4 (93% found to be sufficient); Fall Harvested Round White Potatoes from Canada, 731-TA-124 (Final), USITC Pub. 1463 (1983) at 7 (84.7% found to be sufficient); Offshore Platform Jackets and Piles from the Republic of Korea and Japan, Inv. Nos. 701-TA-248, 731-TA-259 and 260 (Final), USITC Pub. 1848 (1986) at 8 (100% found to be sufficient); Operators for Jalousie and Awning Windows from El Salvador, Inv. Nos. 701-TA-272 and 731-TA-319 (Final), USITC Pub. 1934 (1987) (over 80% found to be sufficient).

[28] The Commission has stated that no precise numerical cutoff exists for outside supply above which an area is disqualified from regional industry status. See Cut-to-Length Carbon Steel Plate from Germany, Inv. No. 731-TA-147 (Preliminary-Remand), USITC Pub. 1550 (1984). In Atlantic Sugar, Ltd. v. United States, however, the Court of International Trade suggested that 12 percent outside supply may be too high to be considered insubstantial "in the abstract." 2 CIT 295, at 298 (1981). The Commission has found on several occasions that percentages of outside supply of less than 10 percent were acceptable, see, e.g., Sugars and Sirups from Canada, (5.5 % found acceptable); Portland Hydraulic Cement from Australia and Japan, Inv. Nos. 731-TA-108 and 109 (Preliminary), USITC Pub. 1310 (1982) (less than 10 % found acceptable), and found in one case that 30 percent was too large. See Frozen French Fried Potatoes from Canada.

southern-tier region. [29] Thus, either petitioners' or respondents' proposed regional markets would appear to be consistent with the requirements of the statute. I note that the statute does not speak to the issue of choosing between regional market definitions when either of two proposed markets would meet the statutory standards.

As a prerequisite to finding material injury in a regional industry, the Commission must also determine whether imports are concentrated within the region. [30] While there is no precise numerical limit for determining when imports are sufficiently concentrated in a region, I find that the concentration requirement is met by both of the regions in question. For the southern-tier region, the share of Mexican imports ranged from 95 percent of total Mexican imports in 1986 to 91 percent in 1989. For the alternative southern-tier, the share ranged from 91 percent in 1986 to 84 percent in 1989. [31]

Based on the record evidence, I determine that either the two regions could be defined as appropriate and that no compelling case has been made for choosing one rather than the other. For purposes of my determination, I use the southern-tier, which includes the entirety of the Gulf states and

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[29] Report at A-13.

[30] I note that in 1989 the ratio of imports from Mexico to consumption into the southern tier was 11 percent, while the ratio for the rest of the United States was 1 percent. Looking at the alternative southern tier region, penetration of Mexican imports would be 11 percent within the region as compared to 2 percent for the remainder of the United States. Report at A-13.

[31] Report at A-13.

California. Since this region is proposed by respondents and opposed by petitioners, it is presumably the more difficult region within which to reach an affirmative finding of material injury by reason of the LTFV imports. By demonstrating injury in this region, I assure that my finding is not the result of arbitrary selection of two equally plausible regions. Of course, because this is the proposed region in which it is more difficult to find material injury, it follows that my ultimate determination would have been the same if I had used the alternative southern-tier region in my analysis.

Minor Finishing Operations. Section 771(7)(B)(i) of the Tariff Act of 1930 provides that, in determining whether LTFV or subsidized imports have caused material injury, the Commission is to consider "the impact of imports of such merchandise on domestic producers of like products, but only in the context of production operations within the United States." [32] Petitioners argued that profits from operations that only grind imported Mexican clinker should not be considered in assessing material injury to domestic producers, since the portion of production that takes place in the United States, the grinding of the clinker, is a "minor finishing operation." [33] They specifically requested that the Commission exclude the clinker grinding

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[32] 19 U.S.C. § 1677(7)(B)(i)(III).

[33] Petitioners' Pre-hearing Legal Brief on Industry Definition at 54.

facilities of Gulf Coast Portland Cement in Houston and of National Portland Cement in Port Manatee, Florida, both of which have imported clinker from Mexico as well as from other countries. However, petitioners make no mention of other grinding-only operations that ground imported clinker for portions of the period of investigation, including Mexican clinker. [34]

As the Commission determined in the preliminary investigation, if the like product includes cement, then grinding and blending of clinker to produce cement constitutes domestic production, and therefore companies that only grind clinker into cement should be included in the domestic industry. [35] Thus, I

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[34] In addition to the two grinding-only operations addressed by petitioners, there are other grinder facilities in the southern tier. Lafarge has a grinding-only operations in Tampa, Florida. In addition, Ideal's facility in Theodore, Alabama, imported and ground Mexican clinker from October 1984 until August 1988 when it began producing its own clinker. Report at A-22.

[35] Mexican Cement at 17-18. I note that the Senate Report to the Omnibus Trade Act of 1988 criticized the Commission's determination in the 1986 Cement investigation as having been based on the attribution of "all profits from the sale of the finished product to . . . domestic production, even though only minor finishing operations were performed in the United States with respect to a substantial portion of domestic production." S. Rep. 71, 100th Cong., 1st Sess. (1987) 117. However, the Conference Report indicates merely that, "[i]n cases in which the domestic producers perform minor finishing operations on dumped or subsidized inputs, the ITC may, if appropriate and feasible, take into account that the profits of such producers may reflect incorporation of such inputs." H.R. Rep. 576, 100th Cong., 2d Sess. (1988) 616-617.

determine that "grinding only" operations are included in the domestic industry. [36]

Related Parties. Alternatively, petitioners argued that Gulf Coast Portland Cement and National Portland Cement should be excluded from the domestic industry as related parties. [37] The related parties section of the statute provides that when a producer is related to the importer or exporter of a product or is itself an importer of the dumped or subsidized imports, the Commission may exclude such a producer from the domestic industry in "appropriate" circumstances. [38] Application of the related parties provision is within the Commission's discretion based upon the facts presented in each case. [39] The related parties provision may be employed to avoid any distortion in the aggregate data bearing on the condition of the domestic industry

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[36] Data from clinker grinding operations were presented separately in the Report in the preliminary investigation and can be isolated in the current report by examining the plant-by-plant data presented in Appendix E.

[37] Indeed, petitioners' argument about minor finishing operations appears to confuse the minor-finishing issue with that of related parties.

[38] 19 U.S.C § 1677(4)(B) provides:

> When some producers are related to the exporters or importers, or are themselves importers of the allegedly subsidized or dumped merchandise, the term "industry" may be applied in appropriate circumstances by excluding such producers from those included in that industry.

[39] Empire Plow Co. v. United States, 11 CIT ___, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987).

that might result from including related parties whose operations are shielded from the effects of the subject imports. [40]

Gulf Coast Portland Cement is the only domestic producer in the region at issue that is owned by a Mexican exporter. [41] However, because it was purchased in mid-1989, near the end of the period of investigation, I determine that appropriate circumstances do not exist for excluding this producer as a related party.

Although a number of domestic producers imported Mexican cement into the region during the period of investigation, no parties argued that these domestic producers should be excluded as related parties. I note, however, that in the 1986 Cement investigation the Commission found that domestic producers accounted for 30 to 50 percent of cement imports and virtually all clinker imports from the countries under investigation and that these imports accounted for a significant proportion of cement production. The Commission did not exclude the importing producers from the domestic industry because that exclusion would

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[40] Granular Polytetrafluoroethylene Resin from Italy and Japan, Inv. Nos. 731-TA-385 and 386 (Preliminary), USITC Pub. 2043 (1987) at 9. Conversely, the Commission has determined not to exclude related parties where they account for a substantial portion of total domestic production and their exclusion would therefore distort the data bearing on the condition of the industry. See e.g., 1986 Cement.

[41] One of the petitioners, Ideal Industries, however, is owned by Holderbank, a Swiss Company that also owns Apasco, a Mexican producer and exporter. Affidavit of Thomas E. Bronson, Exhibits to Petitioners' Pre-Hearing Brief (Volume I) at Tab 4; Report at A-22.

have skewed the data concerning the domestic industry. [42] Similarly, in the preliminary investigation, the Commission did not find the circumstances appropriate to exclude from the domestic industry those producers who ground imported Mexican clinker into cement. [43] The data from all domestic producers that imported, or have financial interests in companies that imported, Mexican or Japanese cement into the southern-tier region during the period of investigation were gathered solely on the basis of their domestic production operations and do not reflect any of these companies' importing operations. I therefore find that appropriate circumstances do not exist to exclude these producers from the domestic industry as related parties.

Petitioners asserted that Gulf Coast Portland and National Portland Cement must be excluded from the domestic industry because they grind imported Mexican clinker into cement. However, they did not request that other facilities that grind imported clinker be excluded from the domestic industry. Two additional companies have imported both Mexican clinker and clinker from other sources during the period of investigation. [44] I determine that National Portland Cement and Gulf Coast Portland Cement should not be excluded as related parties. First, these companies grind clinker from other countries as well as Mexican

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[42] 1986 Cement.
[43] Mexican Cement at 19.
[44] Report at Table 6.

clinker and, second, clinker imports into the region from all countries have declined to a very low level during the period of investigation. [45] Moreover, petitioners did not explain why they requested that only two companies be excluded from the domestic industry when other firms also ground Mexican clinker during the period of investigation.

Cumulation

The Commission is required to cumulatively assess the volume and effect of imports of like products subject to investigation from two or more countries if such imports compete with one another and with the like product of the domestic industry in the United States market. [46] In assessing whether imports compete with each other and with the domestic like product, the Commission has generally considered four factors:

> (1) the degree of fungibility between the imports from different countries and between imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
>
> (2) the presence in the same geographical markets of imports from different countries and the domestic like product;

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[45] In the preliminary investigation, data from these companies' clinker importing operations were not included in the information presented in the Report. Data for one company, Ideal, were not included in the Report in the preliminary investigation because it is not located in the region initially proposed by petitioners. In the current report, data for individual plants are presented in appendix E, and can be segregated.

[46] 19 U.S.C. § 1677(7)(C)(iv).

> (3) the existence of common or similar channels of distribution for imports from different countries and the domestic like product; and
>
> (4) whether the imports are simultaneously present in the market. [47]

While no single factor is determinative and the list of factors is not exhaustive, these factors are intended to provide the Commission with a framework for determining whether the imports compete with each other and with the domestic like product. Only a "reasonable overlap" of competition is required. [48]

Petitioners urged the Commission to cumulate imports from Japan, which are currently subject to a preliminary investigation before the Commerce Department, with the Mexican imports subject to this final investigation. They argued that the statute requires cumulation of Japanese imports into southern California, since those imports compete with Mexican imports into southern

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[47] Certain Telephone Systems and Subassemblies Thereof from Japan, Korea, and Taiwan, Invs. Nos. 731-TA-426-428 (Preliminary), USITC Pub. No. 2156 (February 1989); Antifriction Bearings (Other than Tapered Roller Bearings) and Parts Thereof from the Federal Republic of Germany, France, Italy, Japan, Rumania, Singapore, Sweden, Thailand, and the United Kingdom, Inv. Nos. 303-TA-19 and 20, 731-TA-391-399 (Preliminary), USITC Pub. No. 2083 (May 1988) at 30; Thermostatically Controlled Appliance Plugs and Probe Thermostats Therefore from Canada, Hong Kong, Japan, Malaysia, and Thailand, Inv. Nos. 701-TA-290-292, 731-TA-400-404 (Preliminary), USITC Pub. No. 2087 n.47, at 15 (June 1988).

[48] See Wieland Werke, AG v. United States, 718 F. Supp. 50, 52 (Ct. Int'l Trade 1989); Granges Metallverken AB v. United States, 716 F. Supp. 17 (Ct. Int'l Trade); Florex v. United States, 705 F. Supp. 582 (Ct. Int'l Trade 1989).

California and with the domestic like product, are subject to investigation, and are marketed within a reasonably coincident time period. They also contended that the statute does not differentiate between national or regional industries with respect to cumulation. [49]

Respondents contended, to the contrary, that the statute precludes cumulation in this case, because the two investigations involve different regional industries. [50] In the alternative, they argued that if the Commission determines that cumulation is not precluded by the statute and cumulates Mexican and Japanese imports for the purpose of assessing injury, it should also cumulate for the purpose of determining whether imports are sufficiently concentrated in the region. [51] They suggested that cumulation here is inappropriate because the Commission could not find the requisite concentration of cumulated Japanese and Mexican imports necessary for regional analysis in this investigation. Finally, respondent Apasco argued that there is no overlap between Mexican and Japanese imports in most of the southern-tier and that, even within California, the areas in which imports from Mexico and Japan are sold in competition with the domestic like product are limited. [52]

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[49] Petitioners' Pre-hearing Brief at 29.

[50] Tr. at 191.

[51] Tr. at 191-192; Pre-hearing Brief of Cemex, S.A. and The Cement Free Trade Association at 60.

[52] Pre-hearing Brief of Apasco at 15.

This case raises the issue, apparently not contemplated by Congress, of how to proceed in a situation in which imports from two countries subject to separate investigations involving different but overlapping regional industries are potentially subject to cumulative analysis. Neither the statute nor the legislative history provides any guidance as to how the cumulation and regional industry provisions of the statute are to operate in conjunction.

For purposes of my material injury analysis, I determine that it is appropriate to cumulate other imports into the region that meet the requirements of the cumulation provision. I therefore cumulate the subject Mexican imports into the region with the Japanese imports that are also subject to investigation. However, for purposes of analyzing the regional industry issue, I consider only Mexican imports. [53] Injury analysis involving a

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[53] I note that regional industry analysis focuses primarily on whether the region is insular from the perspective of domestic producers. Thus, regional industry analysis is appropriate only if the producers in a region sell all or almost all of their product within the putative region and demand for the product within the putative region is not supplied to any substantial degree by other U.S. producers. 19 U.S.C. § 1677(4)(C). Neither of these criteria implicates the cumulation provision. The cumulation provision itself also contains a limitation that removes it from the ambit of the regional industry determination. Specifically, the provision states:

> For the purposes of clauses (i) and (ii), the Commission shall cumulatively assess the volume and effect of the imports from two or more countries of like products subject to investigation if such imports compete with each other and with like products of the domestic industry in the United States.

19 U.S.C. § 1677(7)(C)(iv) (emphasis added). Clauses (i) and (ii) referred to in the cumulation provision refer to the provisions setting forth the proper method of evaluating volume

(continued...)

regional industry, like that in a national market, requires an analysis pursuant to 19 U.S.C. § 1677(7), which includes the cumulation provision and the specific clauses referred to in the cumulation provision. I therefore determine that consideration of the cumulation issue in these circumstances is required as a matter of law.

On the facts of this case, I find that cumulation is mandated. Cement imported from Mexico and Japan is highly fungible, both imports are simultaneously present in the California market, and they utilize common or similar channels of distribution. I therefore find that a "reasonable overlap" in competition exists between Mexican and Japanese imports in California, and I cumulatively assess the volume and price effects of Mexican and Japanese imports in that portion of the regional market.

Material Injury by Reason of LTFV Imports

The critical inquiry in this investigation is whether a domestic industry is materially injured or threatened with material injury by reason of the imports under investigation.[54] Material injury is defined as "harm which is not inconsequential, immaterial or

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[53] (...continued)
and price effects of the relevant imports. 19 U.S.C. §1677(C)(i) & (ii). Neither of these clauses is relevant to the Commission's consideration of whether a regional industry analysis is warranted.

[54] 19 U.S.C. § 1673.

unimportant." [55] When making a determination as to whether there is material injury, the statute provides that the Commission consider in each case:

> (I) the volume of imports of the merchandise which is the subject of the investigation,
>
> (II) the effect of imports of that merchandise on prices in the United States for like products, and
>
> (III) the impact of imports of such merchandise on domestic producers of like products, but only in the context of production operations in the United States; [56]

The Commission may consider other factors it deems relevant, but must explain why they are relevant. [57] Under the regional industry analysis, producers of "all or almost all" of the production in that market must be materially injured by reason of the dumped imports. [58]

As in other title VII cases that have come before the Commission, I used simple tools of economic analysis in arriving at my decision that a domestic industry in the United States is materially injured by reason of imports. Application of the tools of economics involves little more than organizing and evaluating the evidence of record in a manner that permits me to assess the impact of dumped imports in a rigorous fashion. I examined the evidence on the performance of the domestic industry

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[55] 19 U.S.C. § 1677(7)(A).

[56] 19 U.S.C. § 1677(7)(B)(i). In examining the impact of the imports, I am instructed to consider such factors as industry employment, investment, and utilization of capacity. 19 U.S.C. § 1677(7)(C)(iii).

[57] 19 U.S.C. § 1677(7)(B).

[58] 19 U.S.C. § 1677(4)(C).

over the period of investigation within the context of its conditions of competition and, by using economic analysis, determined directly -- as our governing statute requires -- that the imports in question affected the domestic industry so as to constitute material injury. [59]

This type of analysis, now known as elasticity analysis, presents a framework within which one can assess the causal (as opposed to coincidental) relationship between the subject imports and the condition of the industry. Elasticity estimates are not surrogates for the statutory factors. Rather, they are used to analyze in a direct fashion the volume effect, the price effect, and the overall impact of the dumped imports on the domestic industry as required by law.

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[59] A more thorough discussion of the economic analysis I use in my approach to causation analysis is contained in Internal Combustion Forklift Trucks from Japan, Inv. No. 731-TA-377 (Final), USITC Pub. 2082, at 66-83 (May 1988) (Additional Views of Vice Chairman Anne E. Brunsdale); see also Certain Steel Pails from Mexico, Inv. No. 731-TA-435 (Final), USITC Pub. 2277, at 24-28 (March 1990) (Additional Views of Chairman Anne E. Brunsdale); Certain Residential Door Locks and Parts Thereof from Taiwan, Inv. No. 731-TA-433 (Final), USITC Pub. 2253, at 33-36 (January 1990) (Additional Views of Chairman Anne E. Brunsdale); Color Picture Tubes from Canada, Japan, the Republic or Korea, and Singapore, Inv. Nos. 731-TA-367-370 (Final), USITC Pub. 2046, at 23-32 (December 1987) (Additional Views of Vice Chairman Anne E. Brunsdale). The Court of International Trade has also discussed with approval the use of elasticities. See Trent Tube Division, et al. v. United States, No. 87-12-01189, slip op. 90-58, at 12-19 (Ct. Int'l Trade June 20, 1990); Copperweld Corp. v. United States, 682 F. Supp. 552 at 560-564 (Ct. Int'l Trade 1988); USX Corp. v. United States, 12 CIT __, 582 F. Supp. 60 (Ct. Int'l Trade 1988); Alberta Pork Producers' Marketing Board v. United States, 11 CIT ___, 669 F. Supp. 445, 461-65 (Ct. Int'l Trade 1987).

In analyzing the effect of dumped imports, I must determine how the dumping has affected demand for the domestic like product. [60] I know from economic theory that the imports will tend to reduce demand for the domestic product. However, I must determine whether such a reduction occurred in any specific case and, if so, how large the reduction was. Having done that, I can then ascertain how the reduction affects the price of the domestic like product and the quantity of the domestic product that is sold.

Condition of the Domestic Industry. In seeking to determine whether an industry has been materially injured by dumped imports, I find it useful to consider the condition of the industry during the period of investigation. Such information, however, is insufficient in itself to establish that an industry is, or is not, injured by reason of dumped imports because it does not permit me to separate the effect of dumped imports from that of the many other factors that may have had a positive or negative effect on the domestic industry. [61] Nevertheless, such

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[60] I note that in the context of a unitary analysis it is not necessary to make any special adjustments for the business cycle because the unitary analysis involves comparison of the industry's performance with what would have occurred absent the LTFV imports rather than a comparison of the industry's performance at different points in time. This point is acknowledged by petitioners' economic experts. See, e.g., Economic Appendices to Petitioners' Pre-Hearing Brief at G-6; Tr. at 59.

[61] For this reason, I do not believe that an independent legal determination based on the condition of the industry is

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an examination of the relevant record evidence is helpful in determining whether any injury resulting from dumped imports is material. [62] Relevant information regarding the condition of the domestic industry includes data on apparent consumption, domestic output, prices, capacity and capacity utilization, productivity, inventories, employment, wages and market share, as well as financial indices such as net sales, profits, return on investment, and cash flow. [63]

Cement and clinker production in the southern-tier increased slightly over the period of investigation. Cement production rose by approximately 4.9 percent from 1986 to 1989 and by 5.4 percent when comparing the first quarter of 1989 and the same period of 1990. Clinker production increased by approximately 10.1 percent from 1986 to 1989. [64] Shipments of cement also increased somewhat over the period of investigation. Total shipments of cement on the basis of quantity were 4.7 percent higher in 1989 than they were in 1986 and rose 3.5 percent when

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[61] (...continued)
either required by the statute or useful. See Certain Light-Walled Rectangular Pipes and Tubes from Taiwan, Inv. No. 731-TA-410 (Final), USITC Pub. 2169 (March 1989) at 10-15 (Views of Chairman Brunsdale and Vice Chairman Cass).

[62] I note that any detrimental effects of the dumped imports on the domestic industry will be manifested in that industry's condition.

[63] 1677 U.S.C. § 1677(7)(C)(ii) & (iii).

[64] Report at Table 7.

comparing the first quarter of 1989 and the first quarter of 1990. [65]

Due to declining unit values, however, the value of total cement shipments by producers located in the southern-tier decreased approximately 3.7 percent between 1986 and 1989. [66] Capacity to produce both cement and cement clinker showed little change over the period of investigation, [67] while capacity utilization increased slightly. [68]

With respect to employment, the number of production and related workers in the southern-tier fell by roughly 19 percent between 1986 and 1989 and decreased by approximately 3 percent when comparing the first quarter of 1989 and the first quarter of

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[65] Report at Table 8. Total clinker shipments by quantity increased greatly in percentage terms over the period of investigation. However, it should be noted that shipments of clinker account for only approximately 5 percent or less of clinker production because most clinker is consumed internally and is not shipped. Report at A-33.

[66] Report at Table 8. Cement shipments rose, however, by approximately 6.5 percent when comparing the first quarter of 1989 and the same period in 1990. Id. While the unit value of clinker shipments also decreased over the period of investigation, the total value of clinker shipments increased dramatically over the period of investigation due to the increased quantity of shipments. However, the amount of clinker shipments was small in comparison to the amount of cement shipped within the region.

[67] Report at Table 7. Clinker capacity decreased approximately 1.3 percent between 1986 and 1989, while capacity to produce cement decreased less than 1 percent between 1986 and 1989 and increased by less than 1 percent between first quarter 1989 and first quarter 1990.

[68] Report at Table 7. Portland cement capacity utilization rose from 70.1 percent in 1986 to 75.1 percent in 1989, while clinker capacity utilization rose from 80.5 to 89.7 percent during the same period.

1990. [69] The number of hours worked by such workers showed a similar fall, decreasing approximately 14 percent between 1986 and 1989 and by 5.5 percent when comparing first quarter 1989 and first quarter 1990. Total wages paid to production and related workers fell by approximately 13.8 percent between 1986 and 1989, while hourly wages rose very slightly. [70] Finally, productivity in the southern-tier rose by approximately 23 percent from 2.6 short tons per man-hour in 1986 to 3.2 tons per hour in 1989 and by approximately 11 percent when comparing first quarter 1989 and first quarter 1990. [71]

The financial performance of southern-tier producers deteriorated during the period of investigation. Gross profit declined by approximately 18.1 percent between 1986 and 1989, while operating income decreased by 36.7 percent during that period. [72] Net income turned into net losses; and the cash flow position of domestic producers also worsened. [73] As a result, operating and net returns on both fixed assets and total assets deteriorated, [74] and some firms curtailed planned investment. [75]

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[69] Report at Table 11.

[70] Report at Table 11. Hourly wages rose by approximately 0.4 percent over the period of investigation. Id.

[71] Report at Table 11. End-of-period inventories of cement in the southern tier showed a 4.4 percent increase between 1986 and 1989, while clinker inventories decreased by approximately 18.8 percent during the same period. Report at Table 10.

[72] Report at Table 12.

[73] Id.

[74] Report at Table 20. Operating return on total assets for producers located in the southern tier decreased from 5.4 percent in 1986 to 2.5 percent in 1989, while net return on such assets decreased from 0.2 percent in 1986 to a loss of 1.0 percent in 1989. Id.

Import Penetration by Unfair Imports and the Dumping Margin. Two important factors in determining the effect of any dumping are the share of the domestic market accounted for by the unfairly traded imports and the size of the dumping margin. The larger the share of the U.S. market held by unfairly traded imports, the greater will be the effect of any change in the price of these unfair imports on the demand for the offerings of other producers -- including both domestic producers and other sources of imports. Thus, ceteris paribus, it is more likely that domestic producers are materially injured when the penetration level of the unfairly traded imports is high.

The market penetration of gray portland cement imports from Mexico in the southern tier region was significant during the period of investigation. It was 9 percent in 1986, 11 percent in 1987, 13 percent in 1988, and 11 percent in 1989, for an average of 11 percent. [76] The ratio of imports from Japan to consumption in the southern-tier region ranged from 1 percent in 1986 to 5 percent in 1989. [77] The ratio of combined imports from Mexico and Japan to consumption in the southern-tier region therefore ranged from 10 percent in 1986 to 16 percent in 1989. [78]

The dumping margin provides information about the extent to which the dumping depresses the price of the unfair imports. If

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[75] (...continued)
[75] Report at Appendix F.
[76] Report at Table 27.
[77] Id.
[78] Id.

the dumping margin is large, the unfair pricing of the subject imports is likely to manifest itself in relatively lower prices for the imports in the domestic market. In the current case, the Department of Commerce found the average dumping margin for cement imported from Mexico to be relatively high -- in excess of 50 percent. [79] For cement imports from Japan, the only information we have on the dumping margins is that alleged by petitioners, who allege margins ranging between 98 and 125 percent. [80] These margins suggest that, absent dumping, prices in the domestic market for the subject imports would have been significantly higher than they were over the period of investigation.

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[79] See 55 Fed. Reg. 29244. The final weighted-average LTFV margins as determined by Commerce are:

Manufacturer/producer/exporter	LTFV Margin
Cemex, S.A.	58.38
Apasco, S.A. de C.V.	53.26
Cementos Hidalgo, S.C.L.	3.69
All others	58.05

[80] Gray Portland Cement and Cement Clinker from Japan, Inv. No. 731-TA-461 (Preliminary), USITC Pub. 2297 (July 1990) at A-12, n. 16. These figures are based on the Department of Commerce's recalculation of petitioner's alleged margins. These recalculations reflect certain refinements to petitioner's original estimates but rely on the basic approach adopted by petitioner rather than the approach Commerce will ultimately use.

This case provides an example of the problems caused when petitions are filed at different points in time while we are required to cumulate the effects of imports from the various countries. Upon further investigation, Commerce might well find that the dumping margins are not as high as petitioner alleges. However, petitioner's allegations provide the best information currently available and we are required to use this information in reaching our decision in this case.

Effect on the Domestic Industry's Prices and Volumes. Using the above information on the price and market share of the dumped imports, I now consider how the quantities of the domestic product purchased by consumers and the quantities produced by domestic firms respond to changes in the prices of the imported and domestically produced goods. [81] These effects can be measured by a series of variables known as elasticities. [82]

The two demand-side elasticities are the elasticity of substitution and the elasticity of aggregate demand. These two measures provide information about the extent to which the dumped imports displace domestic production and the extent to which overall demand for both imports and the domestic like product expands.

Substitutability between Domestic and Imported Cement. The degree of injury from dumped imports is affected by the extent to which a decrease in the price of the unfairly traded imported product would lead U.S. purchasers of cement to substitute the unfairly traded imports for the products of domestic manufacturers. If the domestic and imported products are believed to be very similar, material injury as a result of the

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[81] I also examine how the quantity of imports supplied by producers not accused of dumping would respond to changes in the prices of the imported and domestically produced goods. This permits me to assess the extent to which the effect of the dumped imports was to displace sales of the fairly traded imports rather than the domestic like product.

[82] In general a price elasticity is the percentage change in some quantity resulting from a 1 percent change in some price.

dumping is more likely. With a high level of substitutability, a small decrease in the price of the imported cement may lead a large fraction of purchasers to shift from the domestic product to the unfairly traded import. If, on the other hand, purchasers do not perceive the unfairly traded cement to be a good substitute for cement produced domestically, fewer purchasers will switch to the imported product in response to the price decline occasioned by dumping. It is therefore less likely that the domestic industry has been materially injured.

The degree of substitutability between different products can be quantified by the elasticity of substitution. [83] A large value for the elasticity of substitution indicates that products are good substitutes, while a small value indicates the converse, meaning that purchasers are less likely to change their purchasing patterns in response to a change in relative prices of the products. In the current case, it appears that portland cement from Mexico is highly substitutable for portland cement produced domestically:

> Both domestic and Mexican cement are used for the same application -- the production of concrete -- and are sold through the same channels of distribution. . . . Virtually all U.S. producers, importers and purchasers agree that the quality of U.S.-produced and Mexican cement are comparable. U.S. purchasers also reported that there are no significant differences in the Mexican suppliers' marketing efforts vis-a-vis those of domestic suppliers. [84]

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[83] The elasticity of substitution is defined as the percentage change in the relative quantities of two goods resulting from a 1 percent change in their relative prices.

[84] Economic Memorandum, INV-N-084 at 11.

The fact that all cement generally conforms to the standards established by the American Society for Testing Materials (ASTM) also suggests that the products are excellent substitutes. [85]

The extent of substitutability between domestic and imported products was contested by the parties. Petitioners argued that because cement is fungible and, in fact, almost perfectly substitutable, the substitution elasticity is 10. [86] Respondents claimed that cement is not completely homogeneous economically in light of spatial differences. Because of high land-transportation costs, a quantum of cement located 1 mile from the end user is not economically equivalent to the same quantum of identical cement located 200 miles from the purchaser. Therefore a relatively large price increase may be necessary to induce a producer to sell outside of its normal marketing area, if the seller must assume the delivery or transportation costs. [87] Accordingly, respondents placed the substitution elasticity at approximately 5. Commission staff fixed the elasticity in the range of between 5 and 10. [88] I find respondents' arguments on this point to be more persuasive than petitioners' and,

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[85] Report at A-6.

[86] Tr. at 40; Economic Appendices to Petitioners' Pre-hearing Brief at appendix G, p. 5.

[87] Record evidence supports this contention. Report at A-75-76. Respondents also argued that independent purchasers such as ready-mix concrete companies may prefer to purchase cement from importers rather than from vertically integrated domestic companies, because doing business with vertically integrated domestic producers may put them at a competitive disadvantage relative to those producers' affiliated ready-mix companies, particularly during times of short supply. Tr. at 172.

[88] Economic Memorandum, at 11.

accordingly, I find that the elasticity of substitution lies in the lower end of the range proposed by staff. That is, it lies in the range of 5 to 7, rather than nearer the 10 suggested by petitioners. [89]

I further find that all cement consumed within the region, including both cement produced in plants located outside of the southern-tier region and shipped into the region and cement imported from countries not subject to investigation, has approximately the same degree of substitutability for cement produced in the southern-tier region and for cement imported from Mexico.

Responsiveness of Aggregate Demand to Changes in Price. The effect of the dumped imports is also influenced by the responsiveness of aggregate domestic demand to a change in price. If aggregate domestic demand is highly responsive, a lowering of the price for both imports and the like product as a result of dumping will generate a large increase in the amount of cement demanded and thus in total sales of the product. In such a case, a relatively large portion of the increased sales made by the firms engaging in dumping will be sales that would not have been made had the price been higher; and a relatively small portion of the increase will be sales lost by domestic producers. By

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[89] Of course, had I found the elasticity of substitution to be greater, I would have found even greater effects of the dumped imports. Thus, my conclusion does not depend on the finding of a relatively low value for this parameter.

contrast, if the total quantity demanded does not increase significantly with the decrease in price, most of the sales gained by importers engaging in dumping will come at the expense of the domestic producers or other sources of imports. Thus, the lower the price responsiveness of total demand, the more likely it is that the domestic industry is materially injured by the dumped imports.

The economic concept used in measuring this responsiveness is the elasticity of aggregate demand -- the percentage change in the quantity of a product sold resulting from a 1 percent change in the average price of the product. The higher this elasticity, the more responsive demand is to a change in price.

In this case, aggregate demand for cement is quite inelastic. The demand for cement is derived from the demand for concrete, which in turn depends on the demand for construction. Portland cement accounts for a relatively small portion of the cost of construction. [90] There appear to be no good substitutes for cement in the production of concrete. [91] Because of the lack of substitute products and the fact that cement is a small cost component of a construction project, the demand for portland cement is relatively inelastic. [92]

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[90] Economic memorandum at 12.

[91] Report at A-74-75. Some U.S. producers reported that flyash and slag may be used as a partial substitute for cement as an admixture in the production of concrete. However, flyash can only be used for certain applications, and in most cases could only replace portland cement in approximately 10-15 percent of applications. Id.

[92] Economic memorandum at 12.

Petitioners argued that the price elasticity of demand is less than 0.5. [93] Commission staff placed the elasticity in a range of 0.2 to 0.5. [94] Respondents contended that the staff's estimate of the demand elasticity for cement should be broadened to a range of 0.25 to 0.75 due to the possibility of substituting flyash and slag for cement. Because these substitutes can only be used for certain applications and can only replace a small amount of portland cement, I see no reason to broaden the range and agree with staff's assessment on this issue.

Price Responsiveness of Domestic Supply. Interacting with the demand-side elasticities discussed above are various supply elasticities. Foremost among these is the domestic industry supply elasticity -- i.e., the responsiveness of the domestic industry's supply to a change in price. If domestic industry supply is highly responsive -- that is, if a slight decrease in price will cause domestic firms to decrease the quantity they produce by a relatively large amount -- any effect of dumping is likely to be found primarily in decreased quantities sold by the domestic firms. In such a case, dumping is unlikely to cause much of a decline in the price at which the domestic good is sold. On the other hand, if a price decrease results in only a small decrease in domestic production, dumping may result in a

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[93] Economic Appendices to Petitioners' Pre-Hearing Brief at appendix G, p. 6.

[94] Economic Memorandum, at 12.

smaller effect on the domestic quantity produced and a bigger effect on the price of the domestic good. The price responsiveness of domestic supply is measured by the elasticity of domestic supply -- the percentage change in the quantity of domestic production resulting from a 1 percent change in the average price of the domestic good.

The elasticity of domestic supply in the portland cement industry depends upon a number of factors, including the level of excess capacity in the industry, the availability of alternative markets for cement produced in the southern-tier, whether other production possibilities exist for the manufacturing equipment, and the ease of entry into and exit from the industry. Capacity utilization in the southern-tier for both portland cement and clinker varied during the period of investigation, with cement capacity averaging approximately 72 percent for the period. [95] The average capacity figure for cement clinker was 84 percent. [96]

Because the domestic industry in this case is a regional industry, shipments out of the region may be considered export shipments and therefore may be viewed as alternate markets to which domestic producers could divert shipments in response to price changes in the region or alternate areas. For the southern-tier region, however, 88 percent or more of shipments of producers located in the southern-tier occurred within the

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[95] Report at Table 7.

[96] Id.

region. [97] High transportation costs limit the ability of firms to compete in markets outside of those immediately around the plant or terminal, accounting for the relatively low percentage of total shipments of regional producers sold out of the region. [98]

Entry into the cement market requires approximately two to four years. [99] Thus, it is very unlikely that a new firm could enter the market in less than one year in response to a change in price, which suggests that the responsiveness of domestic supply to a change in price is limited. In addition, virtually all of the equipment used to produce portland cement is dedicated to that use. [100]

Based on the lack of significant excess capacity, the limited nature of important alternate markets, and the lack of flexibility in the use of production equipment, Commission staff placed the elasticity of domestic supply between 1 and 4. [101] Petitioners argued that the proper figure is 1.5, [102] while

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[97] Report at A-13.

[98] Id. Some U.S. producers also reported making small amounts of company transfers outside the southern tier region. To the extent that these firms have affiliates outside the region, it may be more advantageous to ship directly to these affiliates than to outside customers. Economics memorandum, at 7.

[99] Economics Memorandum at 7.

[100] Id.

[101] Id. at 8.

[102] Economic Appendices to Petitioners Pre-hearing Brief at Appendix G, p. 8.

respondents placed the value at 3. [103] The ability to reduce sales to customers outside of the region suggests an elasticity somewhat greater than the 1.5 figure put forth by petitioners. I therefore determine that the relevant elasticity is in the range of 2 to 4.

Price Responsiveness of Supply of Non-Subject Imports. The final factor that must be examined in order to determine the effect of dumping on the domestic industry is the responsiveness of the supply of fairly traded imports -- imports that are not being sold at dumped prices -- to a change in price. A large decrease in the supply of fairly traded imports as a result of a slight price decrease reduces the likelihood that the domestic industry is materially injured as a result of unfairly traded imports. The higher the elasticity of supply of fairly traded imports, the more the effect of any dumping is borne by other sources of imports and the less the effect is borne by the domestic industry. [104]

In this case, petitioners claimed that the elasticity of supply of fairly traded imports to the southern-tier region is

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[103] Respondents state, "With a region-wide capacity utilization nearing 90 percent and several large subregions near or at 100 percent utilization, we have assumed a value of 3.0 for [the elasticity of domestic supply]."

[104] Like its counter-part the elasticity of domestic supply, the elasticity of supply of fair-valued imports measures the percentage increase in the supply of fair-valued imports that would result from a 1 percent increase in the price of those imports.

limited, with a value of approximately 3. [105] Respondents' analysis posited that domestic producers located outside of the region would increase shipments into the region in the absence of LTFV imports and that imports from other countries would increase. Respondents therefore concluded that the appropriate value for the elasticity is 10. I agree with respondents that shipments that enter the southern-tier region from other parts of the United States should be treated as fairly traded imports in this case and that such shipments can be expected to increase in response to a rise in the price of cement in the regional market. [106]

I also agree with respondents that a number of other countries could supply imports to the United States. In addition to Mexico and Japan, at least five other countries -- Columbia, Venezuela, Spain, Greece, and Korea -- exported cement to the southern-tier during 1989. Imports from these countries accounted for between 11 and 13 percent of U.S. consumption in the southern-tier during 1986-89. [107] However, petitioners' argument that high demand in the home markets of these suppliers

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[105] Economic Appendices to Petitioner' Pre-hearing Brief at appendix G, p. 11.

[106] Shipments of cement from domestic producers located outside of the region had a market share of between 6 and 11 percent during the period of investigation. Economic Memorandum at 13. Some indication of the ability to increase or decrease inter-regional shipments can be inferred from the fact that shipments in the southern-tier region from domestic suppliers outside the region ranged between 1.8 million short tons and 3.4 million short tons during the period of investigation. Report at Table 5.

[107] Economic Memorandum at 13.

has resulted in limited excess capacity suggests that there are limits to the feasibility of their expanding exports to the United States. [108]

I find, therefore, that the elasticity of supply of non-subject imports is in the neighborhood of 6 to 8. My finding that the domestic supply elasticity is relatively less than the elasticity of supply of fair imports is consistent with the observation that dumped imports appear to have gained relatively more of their increased market share from fairly traded imports.

The Effect of Dumping on the Domestic Industry. On the basis, inter alia, of the interaction of the market relationships described above, I find that the domestic industry is materially injured by reason of the dumped imports. Simply put, given the relatively inelastic aggregate demand for cement and the high degree of substitutability between the dumped imports and the domestic like product, I find that the dumped imports significantly reduced the domestic industry's sales revenue below the level that one would expect had the imports from Mexico been fairly traded. [109]

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[108] See Petitioners' Pre-hearing Brief, Economic appendix G, at 11-13 and Petitioners' Post-hearing Brief, Responses to Questions of Chairman Brunsdale at 38-39.

[109] Another issue that must be considered in evaluating the effect of dumped imports in this case is the high cost of transporting cement from the Mexican plants in which it is produced to the U.S. market. Both petitioners and respondents agree that it is necessary to account for this cost. (Economic Appendices to Petitioners' Pre-Hearing Brief, Appendix G, at 17, (continued...)

The dumped imports depressed/suppressed prices for the like product and also reduced the quantities of cement sold by domestic producers. If the imports from Mexico had been fairly traded, the domestic industry could reasonably have expected a larger market share given, as is the case here, a relatively inelastic aggregate demand for cement and a high elasticity of substitution between the dumped imports and the like product. As discussed previously, the level of fair-valued imports, both from countries other than Japan and Mexico and from producers outside of the southern-tier region, as well as the reasonably elastic supply of these imports, reduces the impact of the dumped imports. However, this fact is not sufficient to reduce the injury of the domestic industry to an immaterial level.

In addition to considering the impact of the dumped imports on the volume of sales made by the domestic industry and the price at which those sales occurred, the statute directs me to examine "the impact of such merchandise on domestic producers of

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[109] (...continued)
note 46; Pre-Hearing Economic Submission on Behalf of Respondents Cemex, S.A., and the Cement Free Trade Association at A.31 - A.37.) However, the parties disagreed as to the proper way to account for these effects. Petitioners relied on an average of the effects for the entire southern-tier region while respondents utilize a plant-by-plant analysis and then averaged these effects to obtain an average value. (Petitioners' Post-Hearing Brief, Responses to Questions of Acting Chairman Brunsdale, at 40-41; Pre-Hearing Economic Submission on Behalf of Respondents Cemex, S.A., and the Cement Free Trade Association at B.6)

In my analysis I used the approach of the petitioners. I find it difficult to understand exactly what respondents did in their plant-by-plant analysis. In addition, petitioners noted that the plant-by-plant analysis used by respondents results in some anomalous results. (Petitioners' Post-Hearing Brief, Responses to Questions of Acting Chairman Brunsdale, at 35-36)

like products. . . ." [110] In conducting this examination, I am instructed to consider such factors as industry employment, investment, and utilization of capacity. [111]

The effect of the subject imports on these parameters follows from the effect on industry volume and price. For example, the effect on industry employment is directly related to the effect on volume since the employment level in an industry will rise or fall with changes in the demand for its product. In the current case, I believe the dumped imports had a material impact on employment because they had a material effect on industry output.

Investment levels depend on the expected future profitability of the industry. If dumping causes significant declines in industry prices or sales and if these declines are expected to persist into the future, firms may not find it profitable to engage in as much investment as they would absent the dumping. Again, in the present case I find a material impact on investment given the substantial impact dumping had on volume and price. Finally, since dumping had a material impact on industry volume and future investment, it had a material impact on capacity utilization.

In sum, the dumped imports have materially injured the domestic industry, which is manifested in the current condition

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[110] 16 U.S.C. 1677(7)(B)(i)(III).
[111] 19 U.S.C. 1677(7)(C)(iii).

of the domestic industry. [112] The evidence discussed thus far would, in a case involving a national market, be sufficient to lead me to conclude that a domestic industry has been materially injured by reason of the subject LTFV imports. Dumping margins and import penetration are relatively high; the unfair imports are good substitutes for the domestic product; and a decrease in the price of cement is highly unlikely to result in a significant increase in the quantity of cement purchased.

However, as noted above, because this case involves a regional industry, there is an additional consideration that must be addressed. In order to find material injury to a regional industry, "the producers of all, or almost all, of the production within [the regional market]" must be materially injured. [113] In the current case, I find that all of the producers do suffer material injury. As discussed above, the cement produced by one firm is quite substitutable for that produced by another, whether it is produced domestically or abroad. Thus, there are no product differences that would shield some producers from the injury being suffered by others.

Respondents claimed that in spite of the fungibility of cement, the "all or almost all" standard is not satisfied. They presented two arguments to support this contention. First, respondents asserted that a large percentage of Mexican imports were brought in by or for domestic producers, who are responsible

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[112] See discussion p. 29-32, supra.

[113] 19 U.S.C. § 1677(4)(C).

for the pricing of cement in the southern-tier region. [114] They also argued that the domestic industry is not injured by these imports because they are controlled by domestic producers and benefit those firms. [115] Petitioners acknowledged that domestic producers have themselves been importing cement and clinker, but maintained that such imports are a symptom of material injury, because domestic producers have been forced to purchase and sell low-priced LTFV imports in order to remain competitive, rather than produce and sell their own cement. [116]

I agree with respondents that if a domestic producer would have imported Mexican cement, even if it were fairly traded, in order to serve customers that could not otherwise be served, there is no injury from the dumping. While this situation may have occurred on a few occasions, I am not persuaded that the low price at which unfairly traded Mexican imports could be obtained did not play a role in U.S. firms' decisions to import Mexican cement rather than produce themselves, perhaps by engaging in new investment, or than purchase from other domestic firms in order

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[114] Tr. at 145-147.

[115] They argue that this fact limits the significance of the import penetration level. Tr. at 147. They also argue that the profits of domestic importers are greater than they otherwise would be and that the imports are used to augment their production when their capacity is limited, to grant them access to regions where transport costs would make their own product uneconomic and to enable them to serve customers during unanticipated shutdowns. Respondents' Pre-hearing Economic Submission at A.37-A.39.

[116] Petitioners' Pre-hearing Brief at 85-86.

to supply customers in regions where they do not have a plant. [117] Therefore, I decline to find that imports by or for domestic producers do not cause injury to the domestic industry in the present case. [118]

Second, respondents alleged that a substantial number of the producers located in the southern-tier region are not injured because imports are either not present or at least are not a very important factor in the local marketing area in which these producers sell their cement. Respondents argued that it is the location of cement producers' associated terminals (with the plant itself also being considered as a terminal) that determines the competitors for a particular sale. By identifying those domestic terminals and their associated plants that were sufficiently close to the distribution points of the imported Mexican cement to reasonably provide a viable alternative supply, respondents purported to estimate the total import presence experienced by each plant and thus the effect of LTFV imports on

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[117] See Petitioners' Post-hearing Brief, Responses to Questions of Chairman Brunsdale at 14-31. Dumping may injure an importing member of the domestic industry if the presence of the dumped imports in the market has an adverse effect on the producers' ability to invest. See, e.g., Electrolytic Manganese Dioxide From Greece, Ireland, and Japan, Inv. Nos. 731-TA-406-408 (Preliminary), USITC Pub. No. 2097 (July 1988). Several domestic producers who imported Mexican cement have indicated that the presence of the LTFV imports in the market has had a detrimental effect on their ability to invest. Report at Appendix F.

[118] Although one must remain somewhat dubious when faced with allegations that imports by domestic producers are injuring the domestic industry, I see no reason why, in certain circumstances (like those presented here), the domestic industry might not be injured "by reason of" such imports.

the condition of each plant. [119] While I found respondents' analysis of the plant-by-plant effects of the dumped imports very interesting and potentially very useful, I ultimately concluded that I could not rely on this material for a variety of reasons. [120] I would, however, encourage further work along these lines in future regional industry cases, but with the proviso that parties should bear in mind the need to present the analysis with sufficient clarity and support on the record so that the Commission can fully assess its validity.

Therefore, based on the evidence available in this investigation, I find that producers of "all or almost all" of the production of gray portland cement and cement clinker in the southern-tier are materially injured by reason of imports of cement and cement clinker from Mexico that are sold at less than fair value.

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[119] See Respondents' Pre-hearing Economic Submission, Appendix C, and Respondents' Responses to Questions of Acting Chairman Brunsdale at 30-39.

[120] First, the material was not presented with sufficient transparency to allow assessment of the methodology's correctness. Secondly, it seems to me that the effects of the imports should be analyzed in each local market and these effects then averaged to obtain the effects on each plant rather than averaging the values of the various parameters, such as the level of the unfair imports, to obtain a plant level value. Finally, petitioners raised serious questions about the appropriateness of adjusting for the cost of transportation separately for each market while assuming the dumping margin remained constant throughout the region. See Petitioners' Post-hearing Brief, Responses to Questions of Chairman Brunsdale, at 35-36.

Views of Commissioner Seeley G. Lodwick

Investigation No. 731-TA-451 (Final)
Gray Portland Cement & Cement Clinker from Mexico

I determine that an industry in the United States is materially injured by reason of less than fair value imports of gray portland cement and cement clinker from Mexico. [1]

I. Like Product, Related Parties, Regional Industry and Cumulation.

I concur with Acting Chairman Brunsdale's conclusions that cement and clinker constitute a single like product, that the clinker grinding operations of particular producers should not be excluded from the domestic industry, that no related parties should be excluded from the domestic industry, and that the appropriate regional industry consists of a southern tier region. [2] I also concur in Acting Chairman Brunsdale's decision to cumulate imports from Mexico with those from Japan that are also subject to investigation, and note that this is consistent with my decision to cumulate imports of cement from Japan and Mexico in the preliminary investigation of cement from Japan. [3]

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[1] Material retardation is not an issue in this case and will not be discussed.

[2] I note that my analysis of these issues does not differ materially from my views in the preliminary investigation.

[3] See Gray Portland Cement and Cement Clinker from Japan, Inv. No. 731-TA-461 (Preliminary), USITC Pub. 2297 (July 1990).

II. The Business Cycle and Conditions of Competition.

Section 771(7)(C)(iii) of the Tariff Act of 1930 as amended by the Omnibus Trade and Competitiveness Act of 1988 requires the Commission to evaluate the relevant economic factors "within the context of the business cycle and conditions of competition that are distinctive to the affected industry." [4] With respect to the cement and cement clinker industry in the southern tier region, I find the conditions of competition important to my analysis of this case. The cement industry is both capital intensive and produces a "commodity product." In such a commodity market in which producers have high fixed costs, a foreign producer's efforts to increase market share through LTFV pricing affects the prices and/or output of the domestic industry, effectively reducing the contribution profit of the domestic industry and impairing the domestic industry's capability to invest over the long term.

I have also considered the business cycle within the cement industry, but I am not persuaded by petitioners' argument that the cycle within the industry is sufficiently predictable to be of great use in my analysis. Thus, I do not believe that simply examining the return on assets earned by domestic producers, leads me to the conclusion that there is material injury to the domestic industry by reason of the dumped imports. Demand for cement is derived from the activity of the construction industry, an industry that faces boom and bust periods depending upon local business conditions. [5] In this case, the southern tier region includes several submarkets that have faced differing economic conditions over the period of investigation, such as the

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[4] 19 U.S.C. § 1677 (7)(C)(iii).

[5] Report at Table 4; Economic Memorandum, INV-N-084 at 12.

development boom in southern California and the bust in Texas. [6] It is most difficult to define a broad regional business cycle for a regional industry that is comprised of a number of submarkets with their own independent and often unpredictable business cycles.

Because all cement producers have good and bad times dependent upon demand in their local markets, firms must, as the petitioners suggest, earn higher returns on capital in the good times to offset lesser or negative returns on capital in the bad times in order to obtain adequate long-term return on investments. [7] Moreover, since it is difficult to determine exactly where a single local producer is in its business cycle, it is even more difficult to determine where an entire regional industry is in its business cycle, if one exists.

Although there may be independent business cycles and changing conditions in local markets in the southern tier region, the over-all consumption trend within the regional industry may not manifest any peaks or valleys that typically are characteristic of a business cycle. Data collected regarding apparent consumption reveal little change from 1986 through 1989 for the southern tier region. [8] Accordingly, the condition of the regional industry, discussed below, should be considered in the context of relatively stable demand in the southern tier market.

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[6] See Japan Report at Table 6 and Mexican Cement Preliminary Report at Table 5; Mexican Cement Tr. at 69.

[7] Tr. at 20.

[8] Report at Table 5. Between 1986 and 1989 apparent consumption increased by approximately 2 percent.

III. Condition of the Domestic Industry.

In conducting its investigations, the Commission collects data regarding several economic factors and financial indices regarding the domestic industry. These economic factors include apparent consumption, domestic output, prices, capacity and capacity utilization, productivity, inventories, employment, and wages. The financial indices include net sales, profits, return on investments, and cash flow. [9]

Total shipments of cement and clinker in the southern tier increased over the period of investigation. The total quantity of domestic shipments of cement was 4.7 percent higher in 1989 than in 1986 and rose 3.5 percent for the first quarter of 1990 as compared with the first quarter of 1989. [10] Domestic cement and clinker production also increased. [11] Cement production rose by approximately 4.9 percent from 1986 to 1989 and by 5.4 percent for the first quarter of 1990 as compared to the same period in 1989. Clinker production increased by approximately 10.1 percent from 1986 to 1989. [12]

However, due to the declining unit values of cement, the value of total shipments by producers located in the southern tier decreased approximately 3.7 percent between 1986 and 1989. [13] The value of cement shipments rose,

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[9] 19 U.S.C. 1677 (7)(C)(ii) & (iii).

[10] Report at Table 8. Total clinker shipments by quantity increased greatly in percentage terms over the period of investigation. However, it should be noted that shipments of clinker account for only approximately 5 percent or less of clinker production because most clinker is consumed internally and is not shipped. Report at A-33.

[11] Report at Table 7.

[12] Id.

[13] Report at Table 8. While the unit value of clinker shipments in the southern tier also decreased over the period of investigation, the total value (continued...)

however, by approximately 6.5 percent for the first quarter of 1990 as compared with the same period in 1989. [14]

The number of production and related workers in the southern tier also decreased by roughly 19 percent between 1986 and 1989 and decreased by approximately 3 percent for the first quarter of 1990 as compared with the first quarter of 1989. [15] The number of hours worked by such workers showed a similar decline, decreasing approximately 14 percent between 1986 and 1989 and by 5.5 percent for the first quarter 1990 as compared with first quarter 1989. Total wages paid to production and related workers fell by approximately 13.8 percent between 1986 and 1989, while hourly wages rose by approximately 0.4 percent over the period of investigation. [16] This decline in employment, however, was countered by a rise in labor productivity in the southern tier region which increased by approximately 23 percent from 2.6 short tons per man-hour in 1986 to 3.2 tons per hour in 1989 and by approximately 11 percent for first quarter 1990 as compared with first quarter 1989. [17]

Domestic capacity to produce both cement and cement clinker showed little change over the period of investigation [18] and capacity utilization increased

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[13](...continued)
of clinker shipments increased dramatically over the period of investigation due to the increased quantity of shipments. Report at Table 9. However, the amount of clinker shipments was small in comparison to the amount of cement shipped within the region.

[14] Report at Table 8.

[15] Report at Table 11.

[16] Id.

[17] Report at Table 11.

[18] Report at Table 7. Clinker capacity decreased approximately 1.3 percent between 1986 and 1989, while capacity to produce cement decreased
(continued...)

slightly. [19] Domestic inventories of portland cement, however, rose slightly, while inventories of clinker decreased. Neither inventory category represents a significant share of domestic production. [20]

Significantly, the financial performance of southern tier firms deteriorated during the period of investigation. Net sales decreased slightly, reflecting lower unit values for cement. Gross profit declined by approximately 18 percent between 1986 and 1989, while operating income decreased by 36.7 percent during that period. [21] Net income decreased and turned into net losses. [22] The cash flow position of domestic producers also worsened. [23] As a result, operating and net returns on both fixed assets and total assets also deteriorated. [24] Thus, the financial health of the industry has been negatively impacted, as average prices in the domestic industry have declined during a period of slightly rising consumption within the southern tier region. [25] The deteriorating financial performance of the industry is

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[18](...continued)
approximately less than 1 percent between 1986 and 1989 and increased by less than 1 percent comparing the first quarter 1989 and first quarter 1990.

[19] Report at Table 7. Portland cement capacity utilization rose from 70.1 percent in 1986 to 75.1 percent in 1989, while clinker capacity utilization rose from 80.5 to 89.7 percent during the same period.

[20] Id. at Table 10.

[21] Report at Table 12.

[22] Id.

[23] Report at Table 12.

[24] Report at Table 20. Operating return on total assets for producers located in the southern tier decreased from 5.4 percent in 1986 to 2.5 percent in 1989, while net return on such assets decreased from 0.2 percent in 1986 to a loss of 1.0 percent in 1989. Id.

[25] Report at Table 8.

significant, especially during a period of fairly tight domestic supply when prices do not ordinarily decline. Declining profits and cash flows also impair the ability of the industry to invest in long term development. Therefore, I find that the producers of all or almost all of the production in the regional cement and clinker industry in the southern tier region are materially injured.

IV. Material Injury by Reason of LTFV Imports.

In determining whether there is material injury by reason of LTFV imports, the Commission must consider, in each case:

> (I) the volume of imports of the merchandise, which is the subject of the investigation,
>
> (II) the effect of imports of that merchandise on prices in the United States for like products, and
>
> (III) the impact of imports of such merchandise on domestic producers of like products, but only in the context of production efforts in the United States. [26]

The Commission may consider other factors it deems relevant, but must explain why they are relevant. [27] The Commission may take into account information concerning other causes of harm to the domestic industry, but it is not to weigh causes. [28] Under the regional industry provision of the statute, producers of "all or almost all" of the production in that market must be materially injured by reason of the dumped imports. [29]

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[26] 19 U.S.C. 1677 (7)(B). In examining the impact of the imports, I am instructed to consider such factors as industry employment, investment, and utilization of capacity. 19 U.S.C. § 1677(7)(C)(iii).

[27] 19 U.S.C. § 1677(7)(B).

[28] S. Rep. No. 249, 96th Cong., 1st Sess. 57-58, 74 (1979).

[29] 19 U.S.C. § 1677(4)(C).

A. The Volume of Imports is Significant. [30]

The volume of LTFV imports into the southern tier region is significant and increased over the period of investigation. Imports of cement from Mexico by quantity increased approximately 24 percent between 1986 and 1989. [31] Japanese cement imports increased in quantity terms by 395 percent between 1986 and 1989. [32] Clinker imports from Mexico decreased by approximately 70 percent by quantity, to a relatively insignificant level between 1986 and 1989. [33] Clinker imports from Japan during the period of investigation were negligible. [34]

Consequently, there has been a significant increase in subject import market share over the period of investigation. The ratio of imports from Mexico to consumption in the southern tier increased from 9 to 13 percent from 1986 to 1988, then fell to 11 percent in 1989, for an average market penetration of 11 percent over the period of investigation. The ratio of imports from Japan to consumption in the southern tier increased from one percent in 1986 to five percent in 1989. Thus, the ratio of cumulated imports from Mexico and Japan combined to consumption ranged from 10 percent in 1986 to 16 percent in 1989. [35] I therefore consider the cumulatively assessed volume of imports in relation to the size of the market to be significant. Some of the gain in market share of the Mexican and Japanese imports was at

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[30] See 19 U.S.C. § 1677 (7)(B)(i)(I).

[31] Report at Table 27.

[32] Report at Table 27.

[33] Report at Table 28.

[34] Id.

[35] Report at Table 27.

the expense of imports from other countries. Nevertheless, in light of the commodity nature of the product and the conditions of competition in the market, the significant and increasing volume of the subject imports had significant adverse effects on domestic market prices which led to material injury to the domestic industry.

B. The Subject Imports Have Depressed Prices for the Like Product.

1. Underselling exists. [36] In the course of this investigation, the Commission gathered pricing data in twelve metropolitan areas in the southern tier region where Mexican cement was marketed. [37] The record evidence reveals differing degrees of underselling depending upon the geographic market. Nevertheless, underselling predominated in 9 of the 10 market areas in which price comparisons were possible. [38] [39]

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[36] 19 U.S.C. § 1677 (7)(C)(ii)(I) provides that "in evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether -- there has been significant price underselling by the imported merchandise as compared with the price of like products of the United States . . ."

[37] The areas chosen for price comparison were Albuquerque, NM; Houston, TX; Mobile, AL; New Orleans, LA; Orange County, CA; Phoenix, AZ; San Antonio, TX; San Diego, CA; San Francisco, CA; Tampa, FL; Tucson, AZ; and West Palm Beach, FL. Report at A-77.

[38] Report at A-77 to A-84. Underselling predominated in Tampa, FL (33 of 51 months), West Palm Beach, FL (5 of 8 months), New Orleans, LA (24 of 24 months), Houston, TX (23 of 36 months), San Antonio, TX (27 of 38 months), Phoenix, AZ (41 of 48 months), San Diego, CA (36 of 44 months), Orange County, CA (31 of 47 months), and San Francisco, CA (38 of 38 months) markets. Overselling was predominant in one market, Albuquerque, NM (37 of 40 months), and no price comparisons were possible for two markets, Mobile, AL, and Tucson, AZ. Id.

[39] I note that respondents argued that margins of underselling or overselling are more likely to be the result of problems with the data collected in this investigation than they are to reflect the ability of Mexican cement to undersell domestically produced cement in a commodity market. See Tr. at 184

(continued...)

With respect to imports from Japan, the Commission collected pricing data for three distinct marketing areas in California. [40] In Orange County, the only location where data on import prices was received, underselling by the imports occurred in 26 of the 37 months where price comparisons were possible. [41]

2. Significant Price Depression/Suppression Exists.

The record shows that price trends varied, some increasing, others decreasing, depending upon the metropolitan area examined. [42] The decrease in average unit values for the southern tier region, however, shows that on average, prices in the region have declined. [43]

The record evidence establishes that conditions of competition in the cement and clinker industry exist in the southern tier region that tend to increase the probability that price depression has resulted from dumped imports. Generally, imports have the greatest impact on domestic sales and revenues when they are available in significant volumes, when consumers are

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[39](...continued)
and 185. If there were such underselling in a commodity market, one would expect radical changes in market share between subject imports and domestic shipments. These did not occur. I also note that petitioners agreed that it was unusual for the data to reveal significant underselling margins given the price sensitivity in the market for such a commodity product as cement. Tr. at 133-134. Accordingly, I believe the pricing data may overstate the actual degree of underselling by Mexican imports.

[40] These areas were San Francisco, San Diego, and Orange County, California. Japan Report at A-56 to A-57.

[41] Id.

[42] Report at A-77 to A-84. In the twelve local markets for which the Commission collected pricing data, prices increased in five markets: Tampa, FL; West Palm Beach, FL; New Orleans, LA; San Diego, CA; and San Francisco, CA, and decreased in seven markets: Mobile, AL; Houston, TX; San Antonio, TX; Albuquerque, NM; Phoenix, AZ; Tucson, AZ; and Orange County, CA.

[43] Report at Table 14 and Table 8.

unwilling to purchase significantly more of the product even if the prices of these goods go down, and when consumers view the imported and like product as close substitutes. Under such circumstances a decrease in the price of the import is likely to result in direct substitution of the import for the domestic like product, rather than in increased overall purchases of the product. When the import market share is significant, this substitution or threat to substitute tends to lower domestic prices, as domestic producers reduce prices to meet import competition in order to maintain their domestic sales volumes.

In this case, the evidence on all three of these considerations is consistent with the existence of significant price and sales effects on the domestic like product due to LTFV imports of cement from Mexico and Japan. First, the amount of cement demanded is unlikely to increase in response to a change in price. The demand for cement is derived from the demand for concrete, which in turn depends on the demand for construction. Portland cement accounts for a relatively small portion of the cost of most construction projects, [44] and there appear to be no good substitutes for cement in the production of concrete. [45] Second, as discussed above, the import penetration levels for Mexican and Japanese cement are significant and increasing. Third, imports from Mexico and Japan are highly substitutable with domestically produced cement and non subject imports. Both domestic and Mexican cement are used for the same application, the production of concrete,

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[44] Report at Economic Memorandum, Inv-N-084 at 12.

[45] Report at A-74 to A-75. Some U.S. producers reported that flyash and slag may be used as a partial substitute for cement as an admixture in the production of concrete. However, flyash can only be used for certain applications, and in most cases could only replace portland cement in approximately 10-15 percent of applications. Id.

and are sold through the same channels of distribution. [46] The fact that all cement generally conforms to the standards established by the American Society for Testing Materials (ASTM) also suggests that the products are excellent substitutes. [47] Under these circumstances, then, the conditions are present for LTFV imports in the market to lower domestic prices or market share. [48]

The ability of subject cement imports to increase their penetration levels is possible by lowering their prices which effectively lowers prices in the entire market. Domestic producers can attempt to hold on to their market share by matching subject import price declines. The drop in average cement prices in the region supports a finding that significant and increasing subject cement imports from Mexico and Japan did indeed have a price depressing effect on the domestic cement market in the Southern tier during the period of investigation. The drop in non-subject import market share also supports a finding of price depression as non-subject importers appear to have been unwilling to match lower U.S. market prices and have simply reduced their import volumes. [49] Thus, the record evidence as a whole supports the conclusion that the LTFV imports have depressed prices received by the domestic industry to a significant degree. [50]

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[46] Economic Memorandum, INV-N-084 at 11.

[47] Report at A-6.

[48] See New Steel Rails from Canada, Inv. No. 701-TA-297 (Final), USITC Pub. 2217 (September 1989) (Dissenting Views of Commissioner Seeley G. Lodwick) at 238-239.

[49] No evidence suggests that non-subject imports faced rising factor costs or had other export opportunities causing them to withdraw from the U.S. market.

[50] 19 U.S.C. (7)(C)(ii)(I) & (II). The law requires a consideration of both significant underselling and whether the LTFV imports had caused price depression or "prevented increases, which otherwise would have occurred, to a

(continued...)

C. Impact of the Subject Imports on the Domestic Industry.

I find that the volume of imports and their effect on prices in the cement industry in the southern tier have caused material injury to domestic producers based primarily upon their effects on the financial condition of the regional industry.

The cumulated LTFV imports' effects on the prices of producers in the southern tier region have adversely affected the income-related indices discussed above, such as profits, cash flows and return on investments, and thus, the domestic industry's ability to invest. [51] Domestic cement producers, faced with LTFV import price competition have dropped their prices in an effort to maintain their output volumes and capacity utilization levels in order to minimize the drop in their contribution profits to their high fixed costs. This maintains production, shipment, and employment levels, but severely impacts the industry's financial indicators. Failure of the domestic industry to match LTFV import prices would result in large drops in domestic output and contribution profits.

Taken as a whole, the record evidence supports the conclusion that the regional industry has been materially injured by cumulated LTFV imports of cement and is consistent with the requirement that a high proportion of producers within the region must be adversely affect by the subject

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[50](...continued)
significant degree," to evaluate "the effect of imports of such merchandise on prices."

[51] The record in this investigation reveals that some firms have curtailed planned investment. Report at Appendix F.

imports. [52] My analysis is based upon the statutory criteria regarding injury for the industry as a whole, that is, injury to producers of all or almost all of the production in the region. [53] I refuse to be misled by the performance trends of isolated groups of individual producers that may have benefitted from positive economic conditions in their local marketing areas. Nor do I believe that increases in production due to increased demand, even if experienced by most of the industry, require a negative determination for the industry as a whole, let alone under circumstances in which the increased demand is limited to local markets. [54] In this case such increased demand is

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[52] I have taken into consideration respondents' argument that a substantial number of the producers located in the southern tier region are not injured because imports are either not present or at least are not a very important factor in the local marketing area in which these producers sell their cement. See Pre-hearing Economic Submission of Respondents Cemex and The Cement Free Trade Association at Appendix C. I note, however, that it is somewhat arbitrary to determine that if multiple producers exist in a particular geographic area, one can divide subject imports of producers in the area in proportion to their market shares for the entire area, based upon assumptions restricting the distances in which cement can be transported economically, and to do such a causation analysis, as respondents attempt to do. When one considers the range in which Mexican imports can be sold along the Mississippi River, for example, this is even more apparent. Even when some domestic producers are not in the near vicinity of a source of significant subject imports, this does not mean that there is no basis for a causation argument, based upon the effect of some domestic producers shifting shipments away from areas where subject imports compete, a phenomenon referred to as "the ripple effect." These "displaced" shipments that are shifted away the geographic region in which subject imports compete then impact the surrounding geographic areas. Producers in the surrounding areas must then shift their shipments away from the "displaced" domestic shipments or face price declines in their area. The net effect of lower subject import prices through the whole region after all the adjustments by domestic producers will result in lower domestic prices or reduced U.S. shipments in the entire region.

[53] In making this determination, I have examined the record pertaining to the individual producers in the region.

[54] 19 U.S.C. § 1677(7)(E)(ii) ("The presence or absence of any factor which the Commission is required to evaluate . . . shall not necessarily give decisive guidance with respect to the determination by the Commission of material injury."); S. Rep. 100-71, 100th Cong., 1st Sess. (1987) 116;

(continued...)

a phenomenon limited to specific local markets. Further, the statute does not require a finding that producers of all or almost all of the regional production are operating at a loss, but only that such a proportion are "materially injured . . . by reason of the subsidized or dumped imports." [55]

V. Conclusion

For the foregoing reason, I find that the record evidence in this investigation demonstrates that an industry in the United States has been materially injured by reason of LTFV sales of gray portland cement and cement clinker from Mexico.

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[54](...continued)
Cf. American Spring Wire Corp. v. United States, 590 F. Supp. 1273 (Ct. Int'l Trade 1984) at 1279 (legislature intended "that absence of profits shall not act as a proxy for injury.")

[55] 19 U.S.C. § 1677(4)(C).

DISSENTING VIEWS OF COMMISSIONER DAVID B. ROHR

I determine that the domestic regional industry is not materially injured and not threatened with material injury by reason of imports of gray portland cement and cement clinker from Mexico that the Department of Commerce has determined to be sold at less than fair value (LTFV).[1] Specifically, I determine that producers of all or almost all of regional production are not currently experiencing material injury. Further, in light of the recent performance of the industry, prior to the initiation of this investigation, and making reasonable projections about the future volume and price effects of the Mexican imports, I find that there is no real and imminent threat of material injury to producers of all or almost all of regional production.

Like Product, Regional Industry, and Related Parties

In order to make a determination under title VII, I must begin my analysis by defining the domestic industry, that is the universe of producers whose operations are to be evaluated and against whose operations the effects of LTFV imports are to be assessed. This industry is defined in terms of a "like product,"[2] and the "like product" is defined in terms of the articles subject to investigation.[3] The articles subject to this investigation include gray portland cement and cement clinker from Mexico.[4] In the preliminary in this investigation, as well as the even more recent preliminary involving these same articles from Japan, and, indeed, in most recent Commission investigations of these products, gray portland cement and

[1] Material retardation is not an issue in this investigation and will not be discussed.

[2] Section 771(4)(A), 19 U.S.C. §1677(4)(A).

[3] Section 771(10), 19 U.S.C. §1677(10).

[4] Final Determination of Sales at Less than Fair Value, Gray Portland Cement and Clinker from Mexico, 55 Fed Reg 29,244 (July 18, 1990).

cement clinker have been viewed as a single like product.[5] No information to the contrary was developed in this final investigation, as the parties did not argue that any other definition would be more appropriate. I therefore conclude that the like product in this investigation consists of gray portland cement and cement clinker.

The principle issue in this investigation concerning the domestic industry involves the application of section 771(4)(C),[6] the regional industry provision of the statute. As I stated in my views in the Japanese imports case, in all but one of the Commission's many investigations of the cement industry over the years, the Commission concluded that a regional industry analysis was appropriate.[7] I conclude again, in this investigation, that a regional

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[5] Gray Portland Cement and Cement Clinker from Mexico, Inv. No. 731-TA-451 (Preliminary), USITC Pub. 2235 (1989) (hereinafter Mexican Cement). No party in that case argued for a different definition of the like product. In what appears to be the only previous investigation involving imports of both cement and cement clinker in which like product was a contested issue, Portland Hydraulic Cement and Cement Clinker from Colombia, France, Greece, Japan, Mexico, the Republic of Korea, Spain and Venezuela, Inv. No. 731-TA-356-363 (Preliminary), USITC Pub. 1925 (1986) (1986 Cement), respondent parties had argued that cement and cement clinker are separate like products. The Commission found otherwise, concluding that they are a single like product.

[6] The language of the provision is:

> (C) Regional Industries.--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 collection output of a like product constitutes a major proportion of the total domestic production of that product, is not injured, if there is a concentration of subsidized or dumped imports 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 with material injury, or it the establishment of an industry is being materially retarded, by reason of the subsidized or dumped imports.

[7] In all but one of the Commission's prior investigations of cement a regional analysis was used. See Report at A-3; and Views of Commissioner David B. Rohr, Gray Portland Cement and Cement Clinker from Japan, 731-TA-461 (Preliminary) USITC Publication 2297, 31 n.2 (July 1990) (Rohr Japan Cement Views). See also Portland Hydraulic Cement from Australia and Japan, Inv. Nos. 731-TA-108 and 109 (Preliminary), USITC Pub. 1310 (1982); Rock Salt from Canada, Inv. No. 731-TA-239 (Final), USITC Pub. 1798 (1986). In the 1986 Cement case,

analysis is also appropriate. The issue thus settles on the question of what is the appropriate region; in other words, which set of producers make up the regional industry.

First, I conclude that the proper application of the statute in this investigation is for there to be a single regional industry whose operations will be evaluated. In this investigation, Mexican imports enter in substantial quantities all along the Southern border of the United States, and along the California coast as far north as the port of San Francisco (hereinafter referred to as the border area). I note that this border area, along with a number of lesser included geographical areas, all meet the isolated domestic market requirements of section 771(4)(C) (i) & (ii). Import concentration, another requirement for proper application of section 771(4)(C), also increases as the region is broadened to include the entire border area.

There are two subareas within the broadly defined border area whose inclusion into the region in this investigation raises real questions. The first area includes a group of plants in the northern and middle portions of Alabama and Mississippi. These plants ship predominantly northward and, thus, do not market their cement in the same areas as the other plants in the region.[8] Further, only a very small portion of Mexican cement enters the areas in which these plants do sell their cement. I conclude, therefore, that it is appropriate not to include them within the regional industry for this investigation.

The second area, which is considerably more troublesome, includes Northern and Central California. This area, as noted in the Japanese cement preliminary, is served principally by three domestic plants.[9] Having examined the data from these plants, I note that their inclusion would generally have comparable statistical effects to their inclusion in the Japanese cement preliminary investigation. I would be inclined therefore towards their

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the regional industry issue was not raised by the parties. The petitioner in the that case noted that cement was produced and sold in a series of regional markets, but argued that regional markets were all being injured by imports and therefore injury could be assessed on a national basis. Many of the prior cement cases predate the adoption of the regional industry provision in section 771(4)(C), but nevertheless were conducted under analogous principles of regionality under prior statutes.

[8] Report at A-30 n.58.

[9] Rohr Cement Views at 37 n.17.

inclusion into the regional industry.[10] One difference is that these three plants represent a much smaller proportion of the regional industry than they did in the Japanese investigation. Generally, the inclusion of the data from the operation of these plants would improve the statistical picture of the operation of the regional industry. I chose not to include them in the statistical analysis of the regional industry because, even without them, I cannot conclude the regional industry is materially injured. Inclusion of the data from such plants would simply strengthen my negative conclusions.[11]

Finally, the last issue that I considered is whether any domestic producers should be excluded from the domestic industry as related parties due to their imports of Mexican cement or clinker.[12] Many producers did import Mexican product during the period of investigation. Generally however, importing operations were separate from domestic production operations, and all companies were able to provide the Commission with data for their domestic operations

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[10] The statistical tables contained in CO64-N-061, on which the percentage of production analysis were based do not, however, include the operations of these three plants. I was able however to consider the operation of these plants in the recent Japanese cement preliminary investigation. I determined that it was unnecessary for purposes of this decision to amend those tables.

[11] A separate issue raised by petitioners is whether "grinding-only operations," that is establishments that do not have their own clinker kilns but rather purchase cement clinker and grind it into gray portland cement should be included in the industry. I believe that these operations are part of the domestic industry and should be included in an evaluation of the condition of the industry. I note that the Senate Report to the Omnibus Trade Act of 1988 criticized the Commission's determination in the 1986 Cement investigation as having been based on consideration of "all profits from the sale of the finished product to be attributable to domestic production, even though only minor finishing operations were performed in the United States with respect to a substantial portion of domestic production". S. Rep. 71, 100th Cong, 1st Sess. (1987) 117. However, the Conference Report qualifies this by stating that, "[i]n cases in which the domestic producers perform minor finishing operations on dumped or subsidized inputs, the ITC may, if appropriate and feasible, take into account that the profits of such producers may reflect incorporation of such inputs". H.R. Rep. 576, 100th Cong., 2d Sess. (1988) 616-17. The question of exclusion of grinders of Mexican clinker as "related parties" is discussed below. I note that exclusion of grinding-only operations would not affect my conclusions.

[12] 19 U.S.C. § 1677(4)(B) provides:

> When some producers are related to the exporters or importers, or are themselves importers of the allegedly subsidized or dumped merchandise, the term "industry" may be applied in appropriate circumstances by excluding such producers from those included in that industry.

which did not reflect imports of Mexican cement. Those producers who imported clinker could not separate the effects of their imports from domestic production because the imports were a direct cost of the cement they were producing. Such imports, however, were made by only three companies and only to a limited degree.[13] I therefore conclude that it is not appropriate to exclude any of the domestic producers within the region from my analysis.

The region I have chosen thus consists of that region labeled in the Commission's Report as the "Alternative Southern Tier." I have examined the operations of all establishments producing cement clinker and grinding cement clinker into gray portland cement within that geographical area.

Condition of the Regional Industry

In my additional views in the preliminary investigation into this matter,[14] I indicated that I was not satisfied with the aggregate analysis used in regional industry cases because it did not adequately address the "all or almost all" requirement for material injury.[15] In the more recent preliminary investigation into cement imports from Japan, I refined and expanded upon this analysis, which I dubbed a "percentage of production analysis."[16]

At the Commission's public hearing in this investigation, I extensively questioned the parties on their views with respect to this methodology and received detailed posthearing submissions from them. I have considered carefully the comments made by the parties.

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[13] I note that, in one case the company's operations show dramatic improvement for the period after it ceased importing the Mexican clinker. The other cases involve relatively small grinding-only operations who purchased clinker from a variety of sources of which Mexican supply was only one. In all cases the amount of Mexican clinker decreased to negligible quantities by the end of the period of investigation.

[14] Additional Views of Commissioner David B. Rohr Concerning Regional Industry, Injury to a Regional Industry, and Threat, Gray Portland Cement and Cement Clinker from Mexico, Inv. No. 731-TA-451 (Preliminary), USITC Publication 2235, 49, 52-55 (November 1989)(Rohr Mexican Cement Views).

[15] 19 U.S.C. §1677(4)(C) (material injury...may be found...if the producers of all, or almost all of the production within that market are being materially injured....).

[16] Rohr Japan Cement Views at 31.

First, with respect to the validity of the methodology in general, having examined the opinions of our reviewing courts in the multiple appeals of the Commission's regional industry decision in Sugars and Sirups from Canada,[17] I conclude that the percentage of production analysis is certainly not prohibited by any of the decisions in that case.[18] I do note that the CAFC criticized, but did not overrule, the CIT's advocacy of a "piecemeal" analysis.[19] The "piecemeal" approach that was criticized by the Court of Appeals for the Federal Circuit, however, was one requiring individual material injury determinations for each of the companies within the region. The percentage of production analysis, however, is not based on such separate determinations.

The CAFC opinion, in its criticism of the piecemeal approach, noted with approval the discussion of the issue in the Commission's remand decision and the lower court's modification of its own position.[20] In the remand decision, the Commission said, after looking at the legislative history of section 771(4)(C) and distinguishing the original view of the CIT:

> The language of section 771(4)(C), however, may also be read as permitting a somewhat different approach. This alternative methodology is to examine the aggregate data from the various combinations of producers which represent all or almost all of the production in the region and determine whether, as a group, they suffer material injury by reason of imports.[21]

The CIT itself, after first advocating individual assessments of injury to all regional producers, said:

> Therefore, in a situation with a large number of regional producers, use of aggregate data is permissible, if methods of analysis insure that an accurate finding is made, with protection from the possibility of distortion of the representative quality

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[17] Inv. No. 731-TA-3, USITC Pub. 1047 (March 1980),

[18] Atlantic Sugar, Ltd. v. United States, 1 CIT 211, 511 F. Supp. 819 (1981); 2 CIT 18, 519 F. Supp. 916; 2 CIT 295,; 4 CIT 248, 553 F.Supp. 1055 (1982); 573 F.Supp. 1142 (1983), *reversed*, 744 F.2d 1556 (1984).

[19] 744 F.2d at 1562 n.27.

[20] Id.

[21] Second Redetermination of Material Injury, Sugars and Sirups from Canada, Inv. No. 731-TA-3 (Final), USITC Publication 1243, at 10 (May 1982).

of the data.[22]

The percentage of production analysis, which I am now employing specifically only in the context or regional injury analysis, is not based on individual material injury findings for each establishment within a region. Rather, it is a refinement of the traditional aggregate techniques employed by the Commission. Its purpose is to incorporate a quantitative check within the analysis to protect against possible distortion in the representative quality of the aggregate data that any reasonable interpretation of the statute must require in the regional industry context.[23] I am specifically limiting my use of this analysis to the regional industry analysis wherein a linkage to a proportion of the industry is required by the statute.[24] My decision today does not reflect any judgement as to the necessity or utility of the percentage of production analysis in the national industry context.

The analysis begins with the same indicators that are employed in the traditional aggregate injury analysis of the Commission. It calls for the same judgement as to whether the data collected from producers with respect to these indicators is or is not indicative of material injury as does the traditional aggregate approach. The percentage of production analysis, however, goes one step farther and provides a means, with explicit quantitative support in the record, to answer the additional question required in regional industry cases, that is, whether the production of the producers whose indicators are indicative of material injury represent all or almost all of regional production in a given year.[25] It accomplishes this

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[22] 553 F.Supp. at 1060.

[23] Specifically, it does not involve an individual assessment of injury as to each company or establishment within the region.

[24] In the national industry context, the statute permits but does not require a linkage to a major proportion of the industry. See section 771(4)(A), 19 U.S.C. §1677(4)(A), (defining the industry as the domestic producers as a whole or producers of a major proportion of domestic production).

[25] The traditional aggregation techniques simply adds together totals of data for many of the particular indicators, such as production, shipments, net sales, etc. There is no inherent relationship between such sums and the operations of producers of all or almost all of the regional production. In a national industry investigation, where no relationship to a specified proportion of the industry is required, this issue would not arise or be a problem to the legal sufficiency of the analysis. In the regional analysis unless accounted for in some manner, I believe it is fatal.

by summing the total of production which meets or exceeds specific performance levels relevant to material injury with respect to each indicator, by looking at what percentage of total yearly production that sum represents, and, finally, making the determination whether that percentage is significant.[26]

I recognize that this percentage of production analysis does not answer all of the questions relevant to material injury analysis in a regional case. It does provide an additional, and, I believe, more precise analytical tool to be used as part of the analysis. In conjunction with both the traditional aggregate approach and a qualitative assessment of the data, the percentage of production analysis can lead to better decisionmaking.[27] I recognize that there are other approaches than can be applied to provide the protection from distortion in the use of aggregate data required by the "all or almost all" requirement. As long as any approach, including the traditional approach or any other approach that relies on aggregate data, be it

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Other indicators provide overall averages, such as capacity utilization or operating income margins. Even with the averages, one cannot conclude that 50 percent of production is necessarily above or below the average, although additional statistical tools could be used to make such determinations. Further, the overall averages for the basic performance indicators are mathematically biased by those companies whose operations deviate the most from the average, regardless of whether the size of the company or whether the deviation is upward or downward from the norm.

Under the traditional approach in regional industry investigations, the judgment that the aggregate is reflective of material injury to producers of all or almost all regional production is a qualitative and necessarily imprecise assessment. It should never, however, merely be assumed, but, rather, be based on some rational interpretation of the evidence.

[26] For purposes of this analysis, I equate the two questions:

(1) whether producers of all or almost all of regional production is materially injured because a given percentage of production fall below specified performance levels; or

(2) whether producers of all or almost all of regional production is not materially injured because a given percentage of regional production exceeds specified performance levels.

They are precisely the same question, and I will use them interchangeably in this opinion.

[27] Both the traditional aggregates approach and the percentage of production approach are based on the same data gathered by the Commission. The data is merely organized in a different manner. When, however, the different organization leads to such strikingly different results, the possibility must be considered that one or another of the approaches distorts the actual conditions of the industry. The percentage of production analysis weights the data explicitly in terms of the production accounted for by individual firms. It is logical to do so in regional industry cases. It is in accordance with the explicit wording of section 771(4)(C) to do so in regional industry cases. Based upon the data, the distortion in this investigation is in the use of the simple aggregates rather than the percentage of production approach.

aggregate market share, aggregates of supply or demand, or any other aggregates, provides a linkage to the operations of producers of "all or almost all" of regional production, I believe such methods would satisfy the particular demands of the statutory regional analysis. However, if such a linkage is not made, or is not discernible to our reviewing courts, any given method would not meet the statutory requirement.

One criticism made by petitioners of the percentage of production analysis is particularly worthy of comment. Petitioner claims that the analysis is biased because, by focusing on "production", which is a figure reported by those establishments that actually operated in a given year, it ignores plant closings.[28] It is true that the analysis does not focus on plant closings. In part this is because the stated statutory standard (whether there is material injury to producers of all or almost all regional production) specifically refers to the production figure.

I note that the Commission's traditional aggregate statistical analysis also does not inherently take into consideration plant closings. Traditionally, the Commission views plant closings as a separate indicator of the performance of the industry and does not attempt to "adjust" the data of other indicators to account for such closings. I believe that the traditional approach to the consideration of plant closings is sound. I do not believe that Congress intends the Commission to ignore plant closings. I consider plant closings an important factor in my analysis of the condition of the regional industry. However, I will consider plant closings as a separate indicator of the condition of the industry and not attempt to "adjust" the percentage of production analysis to account for them.

Before turning to the specific indicators of the percentage of production analysis, I believe it important to explain certain methodological aspects of this analysis as I have employed it in this investigation. I have chosen to focus on the four years of data for the period 1986 through 1989. I have considered informally, but not included in my statistical

[28] Petitioner's Posthearing Brief, Appendix C at 9.

tables, data for the period prior to 1986 and for the interim period.[29]

In analyzing the data, where possible, I have chosen to make "absolute" comparisons, i.e. whether the specific data for a particular year meets or exceeds a specific performance level. Such comparisons are possible, for example with respect to capacity utilization and operating income to net sales or assets ratios. In other cases, an absolute comparison is not possible or relevant, so I chose to focus on year to year changes in the data. In such cases, for example, production, unit value of shipments, productivity, net sales and net income, I looked to whether the data increased or decreased, and where relevant to the magnitudes of the increases or decreases. No one indicator is dispositive of my judgement, rather it is the composite picture of the industry drawn from my consideration of all of the factors on which I base my decision.

Choosing the appropriate performance levels upon which to make an assessment of material injury was the most difficult portion of this analysis. I very specifically requested the guidance of the parties in making this decision. In some cases, specific recommendations as to appropriate performance levels were provided to me. I incorporated these proposals into the analysis. In many cases, one or another of the parties were unable or unwilling to provide any particular performance levels to guide my analysis. I drew the performance levels that I used from the record as it exists.

I wish to emphasize that I specifically reject the use of any single threshold for a determination of material injury. I do not believe any single formula or mathematical approach to the determination of material injury is practical or desirable. In most cases, I used multiple performance levels and carefully examined what happens when the various performance levels are changed as a guide to my decision as to the performance of the regional industry. Just as no single indicator was dispositive no single performance level was

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[29] The amount of missing data increases for each past year. As a result, it is increasingly difficult to achieve the completeness of the data for comparison purposes needed for the analysis. Further, the one year comparisons for the interim periods and the inherently lesser reliability of data for the short periods of time covered by interim periods would render the inclusion of such interim data in these tables of minimal value.

dispositive.

Additionally, as all the parties agreed, there is a substantial difference in market conditions in different parts of the region. Specifically, the California and Florida markets ("Group A") are generally viewed over the period of investigation as being in their expansionary phases of their business cycles while the Texas, Arizona, and New Mexico markets ("Group B") were viewed as being in the trough of their cycles.[30] In other words, one could expect that companies in Florida and California would be doing better than their counterparts in the Southwest. To account for this fact, I generally set the level of performance I would expect from establishments not experiencing material injury in Florida and California higher than the same level for the Southwestern establishments. I believe that making these distinctions is permitted and encouraged by the Congress' mandate to the Commission to consider the business cycle in its determination.[31] In some instances, for particular indicators as to which I felt that the market conditions would have a lesser effect on the operations of establishments in these two subregions, I used a single performance level.

Finally, another important aspect of the percentage of production analysis is some consideration of what percentage of regional production constitutes "all or almost all" of regional production. Petitioners argued that a percentage as low as 60 percent of regional production constitutes "all or almost all" of regional production.[32] I find this to be unreasonable. No common sense interpretation of the term "all or almost all" can accommodate a meaning of 60 percent of a total. Further, having carefully examined the legislative history of the provision, I find no indication that Congress intended any special meaning for the term that would allow it to be interpreted as meaning any percentage as low as 60 percent of a total.

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[30] Within the alternative Southern Tier region, which I have chosen for my analysis, there is one other plant on the Gulf Coast that does not clearly fall into either subregion as it is affected by conditions in both. For simplicity I have chosen to include it in the Florida/California region, therefore looking for higher performance levels from it. Statistically, its inclusion in either of the groups makes little difference.

[31] Section 771(7)(C)(iii); 19 U.S.C. §1677(7)(C)(iii).

[32] Petitioner's Posthearing Brief, Appendix c at 32.

Those in opposition to the petition point out that the term "all or almost all" is used in section 771(4)(C) twice, and that, in accordance with the rules of statutory construction it should be given the same meaning.[33] This is clearly a reasonable interpretation. In its use by the Commission in applying section 771(4)(C)(i), it is usually related to percentages in excess of 80 percent of shipments.[34] I do not believe, however, that any single number is necessarily appropriate for all indicators in all investigations. For rough parameters, I would view 90 percent as clearly within the meaning of "all or almost all," while 80 percent would, absent some special facts, generally be rather too low to be realistically viewed as "all or almost all."

The first indicator that I examined was production, which is analyzed on a year to year change basis.[35] I made three sets of comparisons for the data, each involving three year to year changes and an overall period change. In the first comparisons, I looked at which Group A establishments showed simple increases in their production and which Group B establishments decreased their production by less than 5 per year. In the second comparison, I set the Group A performance level at a 10% production increase and for group B chose those establishments that showed simple increases in their production. Finally, for the third comparison I looked at those Group A establishments that increased production by at least 20% and those in Group B that increased production by at least 5%.

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[33] Cemex Responses to Questions by Commissioner David B. Rohr at 21-22 (Cemex Responses).

[34] See, e.g., Sugars and Sirups from Canada, Inv. No. 731-TA-3 (Final) USITC Pub. 1047 (1980) at 8 (96% found to be sufficient); Frozen French Fried Potatoes from Canada, Inv. No. 731-TA-93 (Preliminary), USITC Pub. 1259 (1982) at 7 (66% found not to be sufficient); Portland Hydraulic Cement from Australia and Japan (Final), USITC Pub. 1310 (1982) at 4 (93% found to be sufficient); Fall Harvested Round White Potatoes from Canada, 731-TA-124 (Final), USITC Pub. 1463 (1983) at 7 (84.7% found to be sufficient); Offshore Platform Jackets and Piles from the Republic of Korea and Japan, 701-TA-248, 731-TA-259 and 260 (Final), USITC Pub. 1848 (1986) at 8 (100% found to be sufficient); Operators for Jalousie and Awning Windows from El Salvador, 701-TA-272, 731-TA-319 (Final), USITC Pub. 1934 (1987) (over 80% found to be sufficient).

[35] The data from which the percentage of production analysis was taken are contained in Appendix E to the Commission's Report. The computer generated tables were provided for the record in CO64-N-061, August 8, 1990.

Producers accounting for approximately 70 percent of regional production met or exceeded the first two performance levels for the period of investigation, while, for the period, over 31 percent of production still met or exceeded the third and highest set of performance level. Under each of the sets of performance levels, the year to year comparisons reveal increasing percentages of production meeting or exceeding the relevant performance level. Using the lowest performance levels, producers accounting for more than 45 percent of production met or exceeded the performance levels in the 1986-87 comparison while this percentage increased to almost 90 percent in the 1988-89 comparison. Under the highest performance levels less than 9 percent of production met the performance level in the 1986-87 comparison, but even this percentage increased to over 25 percent by the 1988-89 comparison.

I then considered capacity utilization rates. Generally, the most relevant capacity and capacity utilization figures in Commission analyses are those of the finished product, in this case portland cement. The parties, however, in this case make a good argument that clinker capacity is particularly important to an evaluation of the cement industry.[36] I have therefore analyzed both using the absolute performance level approach. Because clinker production is much more difficult (or at least more costly) to start and stop, one would generally expect relatively higher utilization rates for clinker than finished cement. I therefore set the performance levels higher for the clinker utilization analysis than for the portland cement analysis. I also required a significantly higher performance level for the group A establishments. In the first set of comparisons, for portland cement, I used a 90 percent capacity utilization performance level for Group A and a 75 percent performance level for Group B, while for clinker, the capacity utilization rates that I chose were 95 percent and 85 percent respectively. For the second set of comparisons, I used, for portland cement, a 95 percent capacity utilization rate for Group A and 80 percent for Group B. In the corresponding clinker comparison, I used 97.5 percent and 90 percent for the two groups.

[36] Petitioner's Posthearing Brief, Appendix C at 13; Cemex Responses at 10.

Finally, for the third and highest sets of comparisons, for portland cement, I used 100 percent and 85 percent for Groups A and B, while for clinker, I used 100 percent and 95 percent.

For portland cement operations, the lowest performance level was met by 59, 29, 44, and 50 percent of production for the years 1986 through 1989. For the medium performance level comparisons, the comparable percentages of production are 14, 21, 28, and 50 percent. Using the third and highest performance levels, there is a substantial drop off in the amount of production meeting the performance level in the first two years to 7 and 8 percent respectively for 1986 and 1987. The amount of production meeting the performance level in 1988 increased to over 10% and soared to over 32 percent in 1989.

Clinker operations do not exhibit quite the variations that are apparent in portland cement operations and, for each set of performance levels, an increasing percentage of production met or exceeded the performance levels in each year of the investigation.

CLINKER CAPACITY UTILIZATION

Performance Level Group A/Group B	Year 1986	1987	1988	1989
95%/85% Cap. Util.	30%	34%	52%	63%
97.5%/90% Cap. Util.	24%	20%	40%	50%
100%/95% Cap. Util.	16%	13%	29%	35%

My examination of the capacity utilization indicators for this industry does not support the conclusion that producers of all or almost all of regional production are experiencing material injury.

I next examined certain shipment indicators. As the parties argued, the shipment indicators themselves are not particularly revealing. I therefore examined both the quantity and value of shipments only to see whether these indicate increases or decreases over the period. Petitioner argued that price is a particularly important indicator of the condition of

this industry.[37] Price is a condition of the market affecting the industry rather than an indication of the performance of the industry itself. In the traditional lexicon of Commission opinions, price is a cause of the condition of the industry not a reflection of the condition itself. It is nevertheless reflected in several indicators. One of most directly affected indicators is unit shipment values. Such unit shipment values are a very relevant indicator then because they reflect the prices in the market and thus, very directly, the effect of price on the industry.

In looking at the unit value of shipments, I do not believe there is any relevant absolute performance level for evaluating the data. The parties did not present any basis for my concluding that any such absolute performance level is appropriate. I therefore chose to look at increases and decreases in this indicator. Because market conditions are certainly relevant to this indicator, I made an adjustment when looking at the performance of Group A and Group B establishments. For my first comparison, I looked at the production of group A establishments whose unit value of shipments increased and the production of Group B establishments whose unit value of shipments decreased less than 5 percent. My second comparison involved an increase of 5 percent in unit values for group A and simple increases in unit values for Group B establishments. My third comparisons involved a 10 percent increase in unit value for Group A establishments and a 5 percent increase for Group B.

Surprisingly large percentages of production show up in each set of comparisons as meeting or exceeding the relevant performance levels, as revealed in the following table.

Even this performance indicator, which is most reflective of pricing factors, reveals significant improvement over the period of investigation, even at the highest performance levels.[38] Thus, even the unit value of shipments provides only little support for the proposition that producers of all or almost all regional production are being materially injured.

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[37] Petitioner's Posthearing Brief, Appendix C, at 12.

[38] The movement of this indicator is also significant when compared to movement in the unit cost indicator discussed below.

UNIT VALUE OF SHIPMENTS

Performance Level Group A/Group B		Year 1986-87	1987-88	1988-89	Period
0%/-5%	Increase	23%	29%	71%	31%
5%/0%	Increase	5%	11%	41%	26%
10%/5%	Increase	0%	7%	20%	13%

When looking at employment indicators, both parties suggested that productivity indicators, particularly the relationship between labor and output, are more important to look at.[39] They also suggest that generally labor indicators should not be given undue weight due to the low labor content of the end product. Keeping these points in mind, I have examined two productivity indicators relevant to employment as key elements for my evaluation of the employment situation of this industry. These are production per hour (units of production/hours worked by production and related workers) and unit labor costs (total compensation of production and related workers/ units of production). I have looked at both indicators in terms of changes over time and chose not to factor in different performance levels for the two groups of establishments. The performance level for the production per hour comparisons were those producers with productivity increases, productivity increases of 5 percent and productivity increases of 10%. For unit cost comparisons I chose those producers whose unit costs decreased, those with unit cost decreases of 5 percent and those with unit cost decreases of 10 percent or more.

For the period of investigation, 72 percent, 61 percent, and 57 percent of production met or exceeded the three productivity increase performance levels. Year to year productivity increases were made by 75 percent, 57 percent, and 68 percent of production. Five percent productivity increases on a year to year basis were achieved by 50 percent, 41 percent and 62

[39] Official Transcript of Proceedings, Gray Portland Cement and Cement Clinker from Mexico, at 85 (Response of petitioner's witness Mr. Coleman); Cemex Response at 9-10.

percent of regional production. The 10 percent productivity performance level was met by 37 percent, 36 percent and 37 percent of production on a year to year basis.

Also interesting, particularly as they reflect on the small but steadily improving unit value of shipment numbers, were the significantly declining unit labor cost figures for the industry. Over the period, producers accounting for 71 percent of regional production experienced unit labor cost decreases, while 51 percent decreased their unit labor costs by 5 percent and even by 10 percent. Year to year, 65 percent, 63 percent, and 72 percent of production had unit cost declines; 51 percent, 44 percent, and 45 percent had declines in excess of 5 percent; while 28 percent, 38 percent and 28 percent had declines in excess of 10 percent.

I turn now to the profitability indicators, which the parties, in their presentations, certainly emphasized as most important for the Commission's consideration. I first examined net sales and operating income using year to year comparisons and looked at three sets of comparisons: (1) companies which increased net sales or operating income, (2) companies which increased net sales or operating income by 5 percent, and (3) those which increased net sales or operating income by 10 percent. Because I considered these indicators primarily in relation to trends, I do not feel that it was crucial to account for the differences in subregions in the comparisons. The two tables below reveal the results of the analysis.

NET SALES

Performance Level	Year			
	1986-87	1987-88	1988-89	Period
Increase	26%	60%	79%	64%
5% Increase	13%	45%	55%	43%
10% Increase	9%	22%	19%	20%

OPERATING INCOME

Performance Level	Year			
	1986-87	1987-88	1988-89	Period
Increase	54%	40%	46%	45%
5% Increase	50%	34%	40%	35%
10% Increase	37%	20%	31%	35%

For my examination of operating income margins (OIMs), I choose to evaluate the performance of the industry on an absolute basis. In my first comparison, I examined the percentage of production represented by those Group A companies which had OIM in excess of 5 percent and by those Group B companies which had at least positive OIMs. I increased the performance levels in my second set of comparisons to 10 percent OIM for Group A and 5 percent for Group B. In the third set, the performance level was 20 percent OIM for Group A and 7.5 percent OIM for Group B. A significant percentage of production met or exceeded the performance levels in each year as revealed in the following table.

OPERATING INCOME MARGINS

Performance Level Group A/Group B		Year			
		1986	1987	1988	1989
5%/0%	OIM	62%	64%	50%	54%
10%/5%	OIM	40%	55%	39%	49%
20%/7.5&	OIM	27%	35%	18%	19%

Finally, I also examined the ratio of operating income to book value of assets (OROA) as part of my analysis. I noted in my views in the Japanese cement preliminary that I was somewhat skeptical of using asset ratios because of the significant revaluation of assets that many companies underwent during the period of investigation.[40] These revaluations make year to year comparisons particularly problematic. On the other hand, I am looking at OROAs on an absolute performance level basis rather than on a year-to-year basis, so that the effect of the revaluations on my analysis is lessened, although it continues to exist.

Because of the capital intensive nature of this industry I chose higher performance levels for the OROA indicator than I chose for the OIM indicator.[41] In the first comparison I used a 7.5% OROA for Group A and a positive return on assets for group B. I raised these levels to 15 percent and 5 percent respectively in my second comparison. For the third comparison I used a 25 percent OROA for Group A, a level well in excess of that suggested by any of the parties, and a 10 percent level for group B. Even at the highest levels as revealed by the following table, significant percentages of production met or exceeded the performance levels for each year of the investigation.

The issue of the significance of plant closings has also been raised in this investigation. The Bureau of Mines reports an overall decrease in the number of cement plants in the United States from 141 in 1986 to 134 in 1989.[42] This includes both closures and opening of new plants. It appears that at least a significant proportion of the plant closings took place in the

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[40] Rohr Japan Cement Views at 42 n.34.

[41] Although I have chosen what I believe are very high performance levels in evaluating the profitability of this industry, I note for the record that I do not adopt petitioner's argument that it is proper to use the cost of capital of the companies as the standard. As explained in the Report such figures reflect many aspects of conducting business that are unrelated to the actual cement operations of the establishments and bear no relationship to the question at issue before the Commission, that is the relationship between operations and LTFV imports. Report at Appendix E. This is the same reason, for example, why the Commission has consistently focused on operating rather than net income.

[42] Report at A-18.

OPERATING RETURNS TO ASSETS RATIOS

Performance Level Group A/Group B		Year 1986	1987	1988	1989
7.5%/0%	OROA	55%	64%	44%	48%
15%/5%	OROA	38%	45%	31%	25%
25%/10%	OROA	32%	29%	13%	13%

Southwest portion of the United States. Plants that closed during or near the time of this investigation include facilities in New Orleans, El Paso, Houston, Waco, Amarillo, Fort Worth and Dallas.[43] Five of these plants shut down permanently during the period of investigation. In general, the producers all cite economic reasons for the shutdown of these plants.

Several factors become apparent however, when these shutdowns are put into context. First, most of the plants that were shut down were wet process cement plants. This is an older less energy efficient technology with higher operating costs than the dry process used by modern efficient producers. The shutting down of such operations may not be a good sign for the industry, but they cannot be viewed as a significantly negative factor for the industry either.

Second, the shutdowns have not seriously affected capacity either in the alternative Southern tier region of the United States, or even in the more limited Southwest area. The Commission's data do not show any sharp decrease in cement capacity over the period extending as far back as 1983 for either the Southwest or the alternative Southern tier regions, which are the two most relevant areas.[44] The same conclusion is appropriate whether one looks at portland cement capacity or clinker capacity in the Alternative Southern Tier region.[45]

Further, when I compare the trend in capacity with the trends in apparent consumption,

[43] Other plants shut down for shorter periods of time during the period of investigation.

[44] Report at Appendix D, Table D-1.

[45] Report at Table 7.

I note that both reflect the same general stability. The fact that capacity has not generally increased when consumption has been relatively stable is neither surprising nor unexpected. In general, then, the data support the view that, however serious the plant closings may have been for the companies involved, for the regional industry as a whole, they cannot be viewed as materially injurious.

Consideration of the preceding indicators does not lead to a conclusion that producers of all, or almost all of the production within the regional market are experiencing material injury. Producers accounting for more than 20 percent of domestic production met or exceeded most performance levels. In fact, often a majority of production met or exceeded the performance levels. Even when I set the performance levels very high, indicative of a robust and rapidly expanding industry, significant percentages of production met or exceeded these very high performance levels. I conclude therefore that the regional industry is not currently experiencing material injury. Having concluded that the industry is not currently experiencing material injury, I will not address the issues of cumulation or causation.

No Threat of Material Injury

As I have indicated on prior occasions, my analysis of threat involves an assessment of the intentions and capabilities of the foreign producers of LTFV imports with respect to the United States market and the relationship between that assessment and the condition of the domestic industry. In performing this analysis, I have considered each of the factors for threat set out in section 771(7)(F). To simplify exposition, I note that "the nature of the subsidy" is not relevant to this antidumping investigation; that, as noted in the preliminary investigation, inventories are not a substantial factor in my assessment of this industry;[46] that I have looked at volume increases both absolutely and in terms of market share simultaneously; and, that I have considered both existing unused capacity and new capacity together.

[46] Mexican Cement Preliminary at 22 n.67.

I note that the volume of imports has been increasing over the entire period of the investigation.[47] However, looking at trends going back to the early 1980's, it is apparent that the rate of increase has itself been relatively gradual, at least in the most recent periods.[48] I note that for the year 1989 imports had declined from their 1988 levels, a decline that cannot be explained simply by the initiation of this investigation in the last quarter of the year. I would generally characterize the trend in both the absolute volume of imports and in terms of market share as upward, but certainly not at a great rate.

Capacity is much more difficult to assess. In addition to being inherently "soft," that is, subject to varying assumptions and considerable reporting discretion, it is clear that there have been differences over time and between countries in the way capacity has been reported. Both petitioners and those in opposition have provided the Commission with capacity data.[49] In my opinion, those in opposition understate Mexican capacity and petitioners overstate it. On balance I believe that Mexican capacity is in excess by a substantial amount of its domestic and other foreign markets.

I note that there is also a considerable amount of new capacity coming on line in Mexico in the near future. Much of this capacity is coming on line in areas within easy reach of U.S. markets. By the same token, these plants are within easy reach of the fastest growing areas of the Mexican economy, and are located where one would naturally expect, within easy reach of the raw material deposits which are essential for them. Certainly, if the Mexican economy were to "turn sour," these facilities would easily be able to export what they could no longer sell in Mexico to the United States. However, the evidence does not support the conclusion that these facilities are intended principally for additional export to the United States.

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[47] See Report at Tables 25 and 27.

[48] Report at Appendix D, Table D-11.

[49] Report at A-59-61.

Related to production capacity, I find there is another type of capacity that is relevant to this investigation, that is, import capacity as affected by the capacity of import terminals to handle imported cement. During much of the investigative period, Mexican cement was imported by or in connection with U.S. cement companies. Mexican interests now hold substantial interests in importing operations, as well as downstream captive users. On the one hand, marketing may become harder without the U.S. co-venturers, while the increased ownership of downstream companies will make sales easier. Further, with the recent purchase of an import terminal in Los Angeles, all major markets along the border are within easy reach of the imported Mexican cement. The availability of import terminals throughout the region provides the Mexican industry with at least the capability to injure producers of all or almost all of regional production.

Mexican underselling is another factor that it is important to consider in assessing the threat posed by Mexican imports because it provides at least some indication of intentions. It is a factor which, in order to relate to the all or almost all requirement, must be looked at in terms of individual markets.[50] In some markets, there has been a clear and consistent pattern of underselling. In others, there is a mixed pattern and in some even a consistent pattern of overselling. In Florida, the pattern is best described as mixed, with overselling predominant in the more recent comparisons.[51] In New Orleans, there is consistent underselling.[52] In the Texas markets, the patterns are mixed, with Mexican underselling in the majority of instances.[53] New Mexico reveals consistent overselling,[54] while Arizona is similar

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[50] Generally, one would expect that with a fungible product such as cement there would be little variation in price. In such a situation, even with an all or almost all requirement, one could look at aggregate prices. However, the evidence gathered by the Commission reveals substantial variation between local markets within the region, with substantial variation in Mexican overselling and underselling. Individual markets must, therefore, be examined individually.

[51] Report at Tables 31 and 32.

[52] Report at Table 33.

[53] Report at Tables 34 and 35.

[54] Report at Table 36.

to the Texas pattern.[55] In California, there was consistent underselling until 1989, at which time the Mexican product began to consistently oversell the U.S. product.[56] I note that in many instances the underselling was most pronounced during the period in which U.S. companies were responsible for much of the imports. On balance while I conclude Mexican imports could have some price depressive or suppressive effects, the evidence does not indicate that these would be significant.

Finally, in order to make my decision, I must evaluate these possible effects of the volumes and prices of Mexican imports in light of the condition of the domestic industry. I have already concluded that the domestic industry is not currently experiencing material injury, which is to say, in the regional context, that producers of all or almost all of regional production are not currently being injured. While that assessment is relevant for purposes of threat, also important are the trends and, more particularly, operations in the more recent period of time which may be projected contemporaneously with the projections about the future course of imports.

Looking at the percentage of production analysis, which was provided earlier, I note that, for most indicators at almost all levels of performance, increasing percentages of production met the relevant performance levels. With respect to production, increasing percentages of production met each set of performance levels in each of the three year-to-year-change periods. The data on cement clinker capacity show the same pattern, while the percentage of production data on portland cement capacity is similar.[57] Both shipments by quantity and shipments by value show increasing percentages of production meeting the established performance level in each year of the investigation. Even the unit value of shipments data shows the same consistent upward trend.

Productivity indicators are more mixed. For the data at the lowest performance level

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[55] Report at Table 37.

[56] Report at Tables 38-40.

[57] The data for the lowest standards indicate there was a drop in the percentages of production achieving those levels of performance between 1986 and 1987.

for the production per hours worked indicator, the percentage of production that achieved that level trended downward over time. This trend is due, at least in part, to the very large number of companies that achieved at least some productivity increase between 1986 and 1987. At the middle performance level, the trend in the percentages of production achieving the performance level is basically upward with a dip in the 1987-88 period. At the high performance level, the trend is basically flat. For unit labor costs, at the lowest performance level, the trend in the percentage of production achieving the performance level is upward with a small dip in the 1987-88 period. At the middle performance level, the trend is downward with a pronounced dip in the 1987-88 period. Finally, at the highest level the trend is slightly upward with a pronounced rise in the middle.

With respect to the profitability indicators, the picture is also somewhat mixed. At the two lower performance levels, net sales increased in each of the year-to-year-change comparisons, while there was a slight downturn in the 1988-89 period data at the highest performance level. With respect to operating income, for each performance level, the overall trend in the percentage of production meeting the specified performance level was downward. At each level, however, the data for the 1988-89 period reveals an increase in the percentage of production meeting the performance level compared to the 1987-88 period, although the percentages are not as great as in the 1986-87 period. With respect to the OIM margin and the OROA margins, the percentages of production meeting various performance levels are generally downward. In most cases, however, there is an increase in the percentage of production meeting the specified performance level between 1988 and 1989. Also, as I noted with respect to OROA comparisons earlier, the revaluation of assets that affected many of the firms make trend comparisons from OROA data fairly useless.

Overall, the results of the percentage of production analysis seem to indicate an industry that is generally improving over time, and particularly so in the latest full year comparisons, comparisons I do not believe to be substantially tainted by the commencement of this investigation. In addition, a review of the basic aggregate trends supports the

conclusion that there was a marked improvement in 1989 in the performance of the industry.[58] Production, capacity utilization, shipments, and even the average unit value of shipments improved. Productivity was up and unit labor costs were down. Net sales and even gross profit were up even though operating profit was down on an absolute basis. The average OIM, however, did improve in 1989 over low 1988 levels. Average OROA did decline in 1989 from 1988 levels, but by 0.1%. Even the variance analysis, which generally shows the negative impact of prices over the period of investigation, indicates that both prices and quantities sold were increasing in 1989 over 1988 and having substantial positive effects on the profitability of the average company within the region.

In general then, we have an industry that is not materially injured and which is recording its best performance over the period of the investigation in the most recent time period. Against this backdrop, there is the Mexican industry with at least the capability to increase their exports to the United States by significant amounts. Whether this capability constitutes a real and imminent threat is very questionable. There has been significant excess capacity within the Mexican industry for many years, but, particularly in recent years, exports to the United States have grown steadily but relatively slowly. Further, the pattern of pricing does not support the conclusion that Mexican imports are having a price depressive or suppressive effect on the regional industry, particularly in light of the absence of underselling in several major markets within the region. The data simply do not permit the conclusion that any threat posed by the Mexican exports is real or imminent. I therefore make a negative determination.

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[58] I discount the improvement I also see in most of the interim data on the grounds that such data are likely to be affected by the investigation itself.

INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

On April 6, 1990, the United States Department of Commerce (Commerce) advised the U.S. International Trade Commission (Commission) of its preliminary determination that imports of gray portland cement (hereinafter "portland cement") and cement clinker (hereinafter "clinker")[1] from Mexico are being sold in the United States at less than fair value (LTFV).[2]

Accordingly, effective April 6, 1990, the Commission instituted antidumping investigation No. 731-TA-451 (Final) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of the LTFV imports of portland cement and clinker from Mexico.[3]

Notice of the institution of the Commission's final investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of May 3, 1990 (55 F.R. 18683). The public hearing was held on July 19, 1990,[4] and the Commission voted in this investigation on August 13, 1990. The Commission is due to transmit its determination in this investigation to Commerce on August 23, 1990.

This investigation commenced on September 26, 1989, as a result of a petition filed with the Commission and Commerce by counsel on behalf of members of the Ad Hoc Committee of AZ-NM-TX-FL Producers of Gray Portland Cement.[5]

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[1] Portland cement and cement clinker subject to this investigation are provided for in subheadings 2523.10.00, 2523.29.00, and 2523.90.00 of the Harmonized Tariff Schedule of the United States (HTS) (previously under item 511.14 of the former Tariff Schedules of the United States (TSUS)). This investigation does not include white, nonstaining portland hydraulic cement, provided for in subheading 2523.21.00 of the HTS and in item 511.11 of the former TSUS.

[2] Letter from Francis J. Sailer, Deputy Assistant Secretary for Investigations, Import Administration, Department of Commerce, to Anne E. Brunsdale, Chairman, U.S. International Trade Commission, Apr. 5, 1990.

[3] Copies of the Commerce and Commission notices are shown in app. A.

[4] A list of witnesses who appeared at the public hearing is presented in app. B.

[5] The petition lists the following members of the Ad Hoc Committee of AZ-NM-TX-FL Producers of Gray Portland Cement: BoxCrow Cement, Midlothian, TX; Florida Crushed Stone Co., Leesburg, FL; Gifford-Hill & Co., Inc., Dallas, TX; Ideal Basic Industries, Denver, CO; Phoenix Cement Co., Phoenix, AZ; Southwestern Portland Cement Co., Inc., (hereinafter Southdown, Inc., Southwestern's parent company) Houston, TX; and Texas Industries, Dallas, TX. On Apr. 19, 1990, petitioner amended the petition to allege the existence of critical circumstances, and on July 9, 1990, petitioner amended the petition to add the following copetitioners: National Cement Co. of California, Inc., Encino, CA; Independent Workers of North America (hereinafter "IWNA"), Westmont, IL; IWNA Local 49, Victorville, CA; IWNA Local 52, Mojave, CA; IWNA Local 89, Colton, CA; IWNA Local 192, Hesperia, CA; IWNA Local 471, Lebec, CA; and International Union of Operating Engineers, Local 12, Pasadena, CA.

Concurrent and Previous Commission Investigations Concerning Portland Cement

Concurrent with this final investigation, counsel on behalf of the Ad Hoc Committee of Southern California Producers of Gray Portland Cement[6] filed a petition on May 18, 1990, alleging that an industry in the United States is materially injured and is threatened with material injury by reason of imports from Japan of gray portland cement and cement clinker. Accordingly, effective May 18, 1990, the Commission instituted investigation No. 731-TA-461 (Preliminary).[7] A conference was held on June 8, 1990, and on June 27, 1990, the Commission determined that there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the alleged LTFV imports of gray portland cement and cement clinker from Japan.

Previous to the two current investigations, there have been 11 Commission investigations concerning portland cement, dating back to 1960. All of these have been antidumping investigations concerning portland cement, other than white, nonstaining portland cement, with the 1986 investigation involving clinker as well. The first nine investigations were conducted under the provisions of the Antidumping Act of 1921 and the last three were conducted under the provisions of the Tariff Act of 1930. All but the 1986 investigation were determined on the basis of a regional, rather than a national, industry. A listing of the Commission's investigations is presented in table 1.

The Current Investigation

In the preliminary investigation, the petitioner argued that the Commission consider two noncontiguous regional industries--one consisting of Arizona, New Mexico, and Texas and the other consisting of Florida or, alternatively, one region consisting of the four aforementioned States. These two "regions" constitute two of four major marketing areas for imports of portland cement and clinker from Mexico, with the State of California and the Gulf States of Louisiana, Mississippi, and Alabama being the other two. Collectively, the States in these four areas received more than 93 percent of portland cement and clinker imports from Mexico for the period 1986-89. The Commission rejected both of petitioner's approaches, finding instead that the "southern-tier of the United States is the appropriate region for analysis."[8] [9]

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[6] The petition lists the following members of the Ad Hoc Group of Southern California Producers of Gray Portland Cement: Southwestern Portland Cement Co., Inc., Houston, TX, and National Cement Co. of California, Encino, CA. On June 22, 1990, petitioner amended the petition to add the following co-petitioners: IWNA, Westmont, IL; IWNA Local 49, Victorville, CA; IWNA Local 52, Mojave, CA; IWNA Local 89, Colton, CA; IWNA Local 192, Hesperia, CA; IWNA Local 471, Lebec, CA; and International Union of Operating Engineers, Local 12, Pasadena, CA.

[7] 55 F.R. 21662.

[8] United States International Trade Commission, Gray Portland Cement and Cement Clinker from Mexico (Investigation No. 731-TA-451 (Preliminary)), USITC Publication 2235, November 1989, p. 15. In rejecting petitioner's regional arguments and adopting the southern-tier of the United States (hereinafter "Southern-tier region") as the appropriate region, the Commission stated "The exclusion of California and the Gulf states from our analysis would constitute the sort of gerrymandered, free-handed sculpting of regional industries on an

(continued..2)

Table 1
Portland cement and cement clinker: Previous investigations, determinations, countries subject to investigation, and scope of investigations[1]

Year of determination	Nature of determination	Subject countries	Scope of investigation
1960	Negative	Canada	
1961	Affirmative	Sweden	Rhode Island, eastern Massachusetts, and eastern Connecticut (1 market area)
1961	Affirmative	Belgium	East coast of Florida
1961	Affirmative	Portugal	Connecticut, Massachusetts, and New Jersey (1 market area)
1962	Negative	Dominican Republic	Metropolitan New York City and Puerto Rico (2 market areas)
1963	Affirmative	Dominican Republic	Metropolitan New York City
1975	Affirmative[2]	Mexico	Arizona, New Mexico, and southwestern Texas (1 market area)
1976	Negative	Mexico	Florida and southeastern Georgia (1 market area)
1978	Negative	Canada	"Northeast U.S. market," and the "Canadian border U.S. market"[3] (2 optional market areas)
1983	Negative	Australia, and Japan	California and Nevada (1 region)
1986	Negative	Colombia, France, Greece, Japan, Mexico, the Republic of Korea, Spain, and Venezuela	National

[1] Prior to the Trade Act of 1974, the statute provided for an injury analysis on the basis of a "competitive market area," thereafter a "marketing area" or "region."

[2] The Commission "does not determine that there is no reasonable indication that an industry is being or is likely to be injured, or is prevented from being established, by reason of the importation of such merchandise into the United States." Subsequent to this determination, the Department of the Treasury made a negative LTFV determination and the investigation was terminated.

[3] The "northeast U.S. market" included the States of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. The "Canadian border U.S. market" included the States of Alaska, Idaho, Illinois, Indiana, Michigan, Minnesota, Montana, North Dakota, Ohio, Oregon, Pennsylvania, South Dakota, Washington, Wisconsin, and Wyoming, but did not include those States listed in the "northeast U.S. market."

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[8](...continued)
outcome-oriented basis that the CIT has warned us against, and that was condemned in the past." USITC, Cement from Mexico, USITC Publication 2235, pp. 15-16.

[9] The Southern-tier region is defined as the following States, in their entirety: Florida, Alabama, Mississippi, Louisiana, Texas, New Mexico, Arizona, and California. See fig. 3 in the "U.S. producers" section.

The Commission determined that the Southern-tier region satisfies the statutory criteria for regional industry analysis--[10](1) that the producers within such market sell all or almost all of their production of the like product in question in that market; (2) that 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; and (3) that there is a concentration of subsidized or dumped imports into such an isolated market. For this report, information was collected from producers and importers throughout the Southern-tier region.[11] Information for the entire U.S. industry was derived from U.S. Bureau of Mines data and other publicly available data.

With respect to the issue of "like product," the Commission determined, in the preliminary investigation, that portland cement and clinker constituted a single like product. The Commission noted that "clinker is an intermediate material produced when manufacturing cement and has no use other than to be ground into finished cement."[12]

In the preliminary investigation, petitioners argued that because the like product is portland cement and cement clinker, it consists of the producers of same in the regional market at issue. Following this approach, petitioners further argued that, since the production of clinker accounts for over 80 percent of the cost of producing portland cement, the grinding of clinker is a minor finishing operation. Therefore, petitioners argued, profits derived from grinding imported clinker should not be considered as profits of a U.S. producer[13] and should not be considered in the Commission's analysis of the health of the proposed regional industries in that investigation. The Commission rejected that argument noting "if the like product includes cement, then grinding and blending of clinker to produce

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[10] 19 U.S.C. 1677(4)(C).

[11] As another approach to the Southern-tier region found by the Commission in the preliminary investigation, petitioner has proposed the Commission consider an Alternative Southern-tier region consisting of the States of Florida, Texas, New Mexico, and Arizona, in their entirety, and only southern California and the coastal counties of Alabama, Mississippi, and Louisiana. Letter from Joseph W. Dorn, Attorney for Petitioner, to Chairman Anne E. Brunsdale, U.S. International Trade Commission, Apr. 2, 1990. The net effect of such a regional approach would be to exclude 10 producers currently included in the Southern-tier region (6 in Alabama, 1 in Mississippi, and 3 in California). In view of this request, information for an Alternative Southern-tier region is presented in the trade and financial tables and related text.

Additionally, petitioners, in their prehearing brief, stated "Given the Commission's discussion of the regional industry criteria in the preliminary determinations in the Mexico and Japan investigations, [P]etitioners will focus this brief on the Alternative Southern Tier Region ("Alternative Region"), as defined in the Commission's questionnaire. The Alternative Region is even more isolated and insular than the Southern Tier Region, and it clearly satisfies the concentration of imports criterion. Petitioners request, however, that the Commission assess the impact of imports on regional producers in the context of the distinctive construction and cement cycles in the Southwest, Florida, and Southern California "subregions." (Petitioners' prehearing brief, p. 4.) In view of the foregoing, trade and financial data for Florida, the Southwest (Texas, New Mexico, and Arizona), and southern California, as well as the State of California are presented in app. C.

[12] USITC, Cement from Mexico, USITC Publication 2235, p. 4.

[13] Petition, p. 21.

cement constitutes domestic production, and therefore these companies are properly included in the domestic industry."[14]

With regard to the relevant period to be examined in the Commission's consideration of material injury or threat thereof, petitioners requested that the Commission consider all relevant economic factors that have a bearing on the state of the industry "within the context of the business cycle,"[15] thereby looking at a period longer than the 3-year period considered in most investigations. Petitioner argued that in Florida the alleged LTFV imports from Mexico "have suppressed prices and prevented regional producers from realizing an adequate return on investment and from achieving the profits they would otherwise have achieved during the expansion phase of the construction and cement cycle."[16] Insofar as Texas, New Mexico, and Arizona are concerned, petitioner argued that the alleged LTFV imports "have increased and have maintained significant market share when regional producers are most vulnerable--during the contraction phase of the construction and cement cycle."[17] In view of this request, but also taking into consideration the difficulty in obtaining information concerning an earlier period, staff asked producers and importers to provide limited trade, financial, and pricing information from 1983 to 1985, in addition to information requested for January 1986-March 1990, to enable the Commission to evaluate the industry's performance in the context of the business cycle. Those data are presented in appendix D.

The Product

Description and uses

Portland cement is a hydraulic cement consisting mainly of compounds of calcium, silica, and iron oxide, which, when mixed with water and aggregate, chemically react to form concrete. The cement is a highly standardized product, usually prepared from a mixture of limestone, clay, and iron ore, that is crushed and ground by either a wet or dry process. The mill feed is sintered at about 2,700 degrees Fahrenheit in refractory-lined, cylindrical, steel rotary kilns to make cement clinker, which is in the form of small, grayish-black pellets. Clinker is quite different in appearance and properties from the finished product and has no other use than for the production of cement.

Clinker may be stockpiled outside in a dry climate, but must be protected from moisture in areas with varied weather conditions. When the clinker is ground into cement, about 5-percent gypsum and other materials are added to retard the absorption of water and allow for easier handling. The

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[14] USITC, Cement from Mexico, USITC Publication 2235, pp. 17-18. Likewise, the Commission rejected petitioners' alternative argument that these companies should be excluded as related parties, stating "we have considered information with respect to 'grinding only' operations, particularly those which grind some amount of imported Mexican clinker, separately from other producer data. We do not, however, find appropriate circumstances for excluding them from the domestic industry under the related parties provision." Ibid, pp. 19-20.

[15] Sec. 771(7)(C) of the Tariff Act of 1930.

[16] Petition, p. 37.

[17] Ibid.

final grinding step and the materials added are very important in determining the specifications and type of finished cement.

Hydraulic cements are distinguished from nonhydraulic cements by the fact that they will set, or harden, under water; nonhydraulic cement will not set under water. Portland[18] cement is the most important of the four major categories of hydraulic cements,[19] accounting for about 95 percent of domestic production and, reportedly, for almost all imports.

All cement generally conforms to the standards established by the American Society for Testing Materials (ASTM). General descriptions of the five standard types of portland cement are given by ASTM as follows:[20]

> 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.

In 1989, types I and II portland cement together accounted for 92.1 percent of the quantity of all shipments of portland hydraulic cement from U.S. plants (table 2). Specifications for type I and type II portland hydraulic cement are very similar. The chemical specifications for types I and II differ in that type I 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. In addition to the standard portland cements, there are a number of special cement blends that consist of portland cement.

Cement is hygroscopic; that is, it has a tendency to absorb water. Because cement and water form concrete, cement 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.

Portland cement is used predominantly in the production of concrete. Concrete is consumed 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. 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.

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[18] The name was given in 1824 by Joseph Aspdin, a bricklayer of Leeds, England, to a hydraulic lime that he patented, because when set with water and sand, it resembled a natural limestone quarried on the Isle of Portland in England.

[19] Portland, masonry, pozzolanic, and natural or Roman cement are the four major categories of hydraulic cements.

[20] ASTM designation C-150, petition, p. 6.

Table 2[1]
Portland cement: Shipments from U.S.[2] plants, by types of cement, 1989

Type of cement	Quantity 1,000 short tons	Value 1,000 dollars	Unit value Per short ton
General use (types I and II).....	77,597	3,718,291	$47.92
High-early strength (type III)...	3,133	164,291	52.45
Sulfate-resisting (type V).....	758	43,970	58.03
Oil well.....	869	42,316	48.70
White.....	456	70,715	155.24
Slag and pozzolan.....	545	29,618	54.33
Expansive.....	40	3,999	100.62
Miscellaneous[3].....	832	48,358	58.10
Total or average.....	84,229	4,121,558	$48.93

[1] The Bureau of Mines' portland cement classification includes some cements that are special blends consisting of portland cement but that are technically outside of the portland cement category.

[2] Includes Puerto Rico.

[3] Includes waterproof, low-heat (Type IV), and regulated fast-setting cement.

Source: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, "Cement in 1989," July 13, 1990, p. 17.

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

Concrete, being a major material in building construction, competes withstructural 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 3 shows the types of customers for cement during 1989.

Table 3
Portland cement: U.S. producers' shipments as a percentage of total shipments, by types of customers, 1989 [1 2]

Type of customer	Percent of total
Building material dealers	4.2
Concrete product manufacturers	11.4
Ready-mixed concrete	73.5
Highway contractors	4.8
Other contractors	3.6
Federal, state, and other government agencies	.2
All other	2.3
Total	100.0

[1] Includes cement imported and distributed by domestic producers.
[2] Includes Puerto Rico.

Source: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, "Cement in 1989," p. 16.

Production process

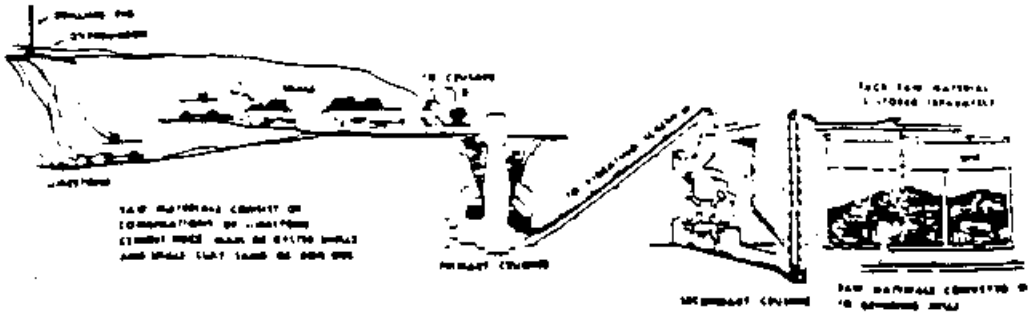
There are basically two processes used to blend the raw materials to produce cement: the wet process and the dry process, which are both depicted in figure 1. In the wet process, the raw materials are ground, blended, and mixed with water to produce a slurry. This slurry is fed into rotary kilns in which it is heated to induce chemical reactions that convert the raw material into clinker. The wet process is used where some of the raw materials are very moist. It is also the older process, having been used in Europe before the manufacture of portland cement in the United States.

In the dry process, all grinding and blending are done with dry materials in a roller mill. In more technically advanced facilities, the blended raw meal then goes through a preheater and precalciner in which it is partially calcined by direct firing before entering the rotary kiln. In the dry-process facilities that do not include a preheater or precalciner, the raw meal is fed directly into a rotary kiln in which it is calcined into clinker. The advantage of using preheaters and precalciners is that they can reduce kiln fuel consumption.[21] Figure 2 shows some of the new technology used in the dry-process manufacture of portland cement.

In the United States, approximately 59 percent of the cement clinker production facilities use the dry process.[22] Many domestic producers converted their facilities to the dry process. The main advantage of this process is that it is more energy efficient than the wet process, since less time is needed for heating. Material travels through the kiln in 15 to 20 minutes, whereas the wet process requires approximately 1-1/2 hours of kiln time. For both the wet and dry processes, the major sources of energy to

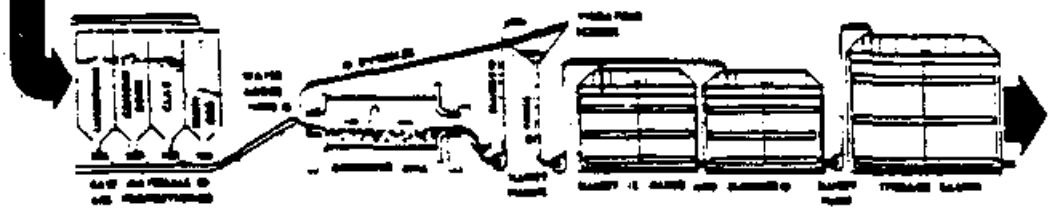
[21] Norman L. Weiss, ed., SME Mineral Processing Handbook (Society of Mining Engineers, American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc., New York, NY, 1985), vol. 2, p. 26.
[22] U.S. Department of the Interior, Bureau of Mines, Directory of Cement Producers and Importers in 1988, Feb. 1, 1989, pp. 10-18.

Figure 1.--Steps in the manufacture of portland cement

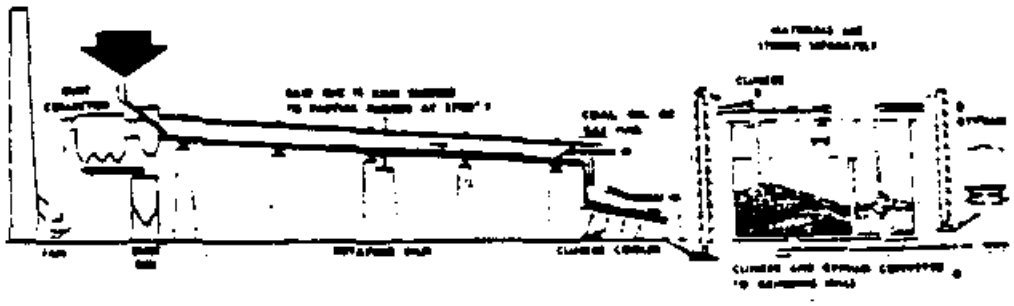


1. Stone is first reduced to 3-in. size, then to ¼ in., and stored.

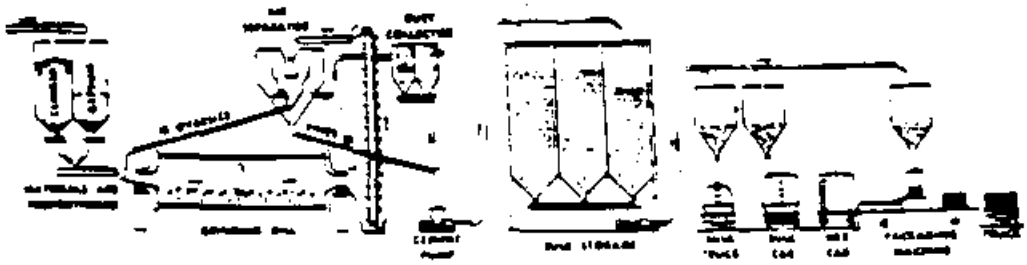
OR 2. Raw materials are ground to powder and blended.



2. Raw materials are ground, mixed with water to form slurry, and blended.



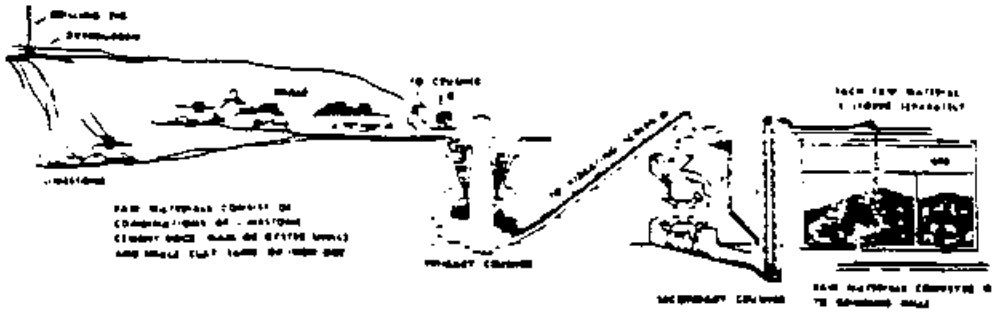
3. Burning changes raw mix chemically into cement clinker.



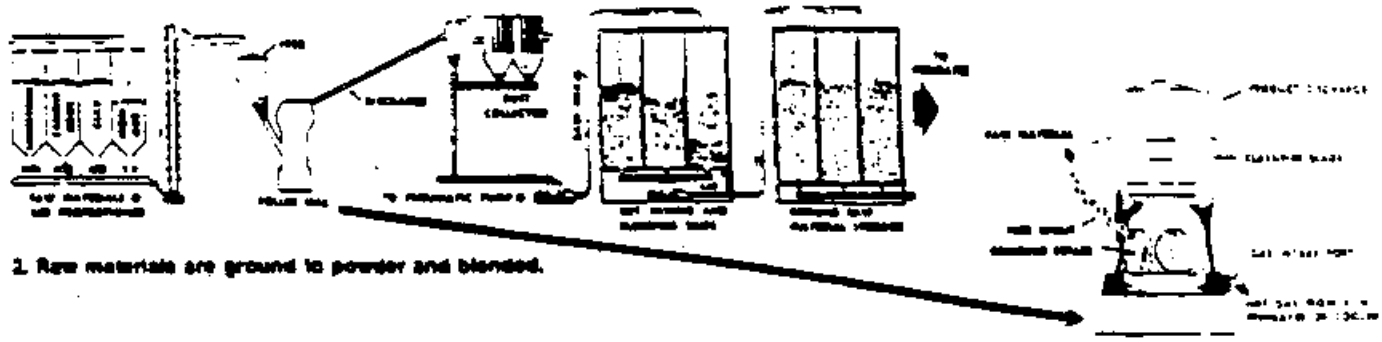
4. Clinker with gypsum is ground into portland cement and shipped.

Source: Portland Cement Association

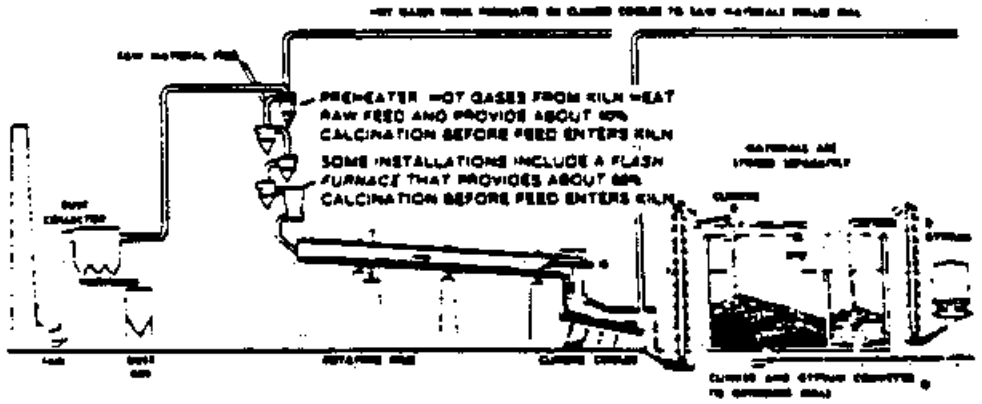
Figure 2.--New technology in dry-process cement manufacture



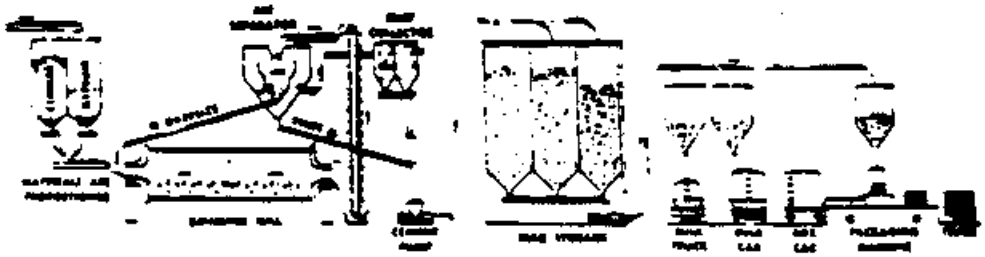
1. Stone is first reduced to 5-in.-size, then to ¾-in., and stored.



2. Raw materials are ground to powder and blended.



3. Burning changes raw mix chemically into cement clinker. Note four-stage preheater, flash furnaces, and shorter kiln.



4. Clinker with gypsum is ground into portland cement and shipped.

Source: Portland Cement Association

operate the kiln include coal, oil, and gas. The U.S. cement industry uses predominantly coal, whereas the Mexican industry uses mostly fuel oil No. 6. The choice of fuel is simply an economic decision based on fuel prices, transportation costs to the production site, and efficiency costs of using one fuel over another.

U.S. tariff treatment

U.S. imports of portland cement (other than white, nonstaining portland cement) from countries entitled to the column 1-general (most-favored-nation) duty rate, including Mexico, enter free of duty under subheadings 2523.29.00 and 2523.90.00 of the HTS. U.S. imports of cement clinker from countries entitled to the column 1-general duty rate enter free of duty under subheading 2523.10.00. The column 2 rate of duty for both portland cement and cement clinker is $1.32 per metric ton, including the weight of the container, and is applicable to imports from those communist countries and areas specified in general note 3(b) to the HTS.

Nature and Extent of Sales at LTFV

On July 18, 1990, Commerce published in the Federal Register (55 F.R. 29244) its final determination that portland cement and clinker from Mexico are being, or are likely to be, sold in the United States at LTFV. Commerce's determination was based on examinations of sales of portland cement and cement clinker for the period April 1, 1989, through September 30, 1989. The final weighted-average LTFV margins (in percent) are presented in the following tabulation:

Manufacturer/producer/exporter	LTFV margin
Cemex, S.A.	58.38
Apasco, S.A. de C.V.	53.26
Cementos Hidalgo, S.C.L.	3.69
All others	58.05

For each of the companies listed above, Commerce compared the United States price to the foreign market value, based on information submitted by the companies in response to Commerce's questionnaire.[23] Foreign market value for all respondents was determined by using sales in the home market. Details of Commerce's final determination,[24] by company, are contained in Commerce's Federal Register notice presented in appendix A.

[23] Cementos Mexicanos, S.A. (Cemex) and Grupo Cementos Apasco (Apasco) were responding to Commerce's questionnaire, while Cementos Hidalgo, S.C.L. (Hidalgo) made a voluntary submission.

[24] On Apr. 19, 1990, petitioner alleged that critical circumstances exist with respect to imports of portland cement and clinker from Mexico. In its final determination, Commerce found that there is no reasonable basis to believe or suspect that critical circumstances exist with respect to imports of portland cement and clinker from Mexico.

The Domestic Market

The regional character

Because of the low value-to-weight ratio and the fungible character of cement, transportation costs are an important limiting factor on its shipment. More than 95 percent of portland cement shipments in the United States are to customers located within 300 miles of the production site. The following tabulation presents the distribution of producers' shipments, by distances, for the Southern-tier in 1989 (in percent):

Miles shipped	Share of domestic shipments
0-99.....	52
100-299.....	42
300-499.....	5
500 or more..	2

Producers located in the Southern-tier shipped more than 94 percent of their cement within a 300-mile radius of their plants in 1989. Moreover, importers of cement from Mexico located in the Southern-tier shipped virtually all of their imports of portland cement from Mexico within a 300-mile radius. The following tabulation presents the distribution of Southern-tier importers' shipments, by distance shipped, in 1989 (in percent):

Miles shipped	Share of import shipments
0-99.....	89
100-299.....	9
300-499.....	2
500 or more..	0

Information on the statutory criteria set forth for regional analysis are shown in the following tabulation for the Southern-tier region and the Alternative Southern-tier region (in percent, based on quantity for portland cement):[25]

[25] In view of the ongoing investigation concerning imports of portland cement and clinker from Japan, information with regard to those imports is presented throughout the report to enable the Commission to consider their possible cumulation with the imports from Mexico subject to this investigation.

Item	1986	1987	1988	1989
Southern-tier region:				
Share of:				
U.S. producers' shipments within region..	91	90	89	90
Regional consumption supplied by producers outside region.....	10	8	6	8
Imports from Mexico.....	95	95	92	91
Imports from Japan.....	68	71	75	79
Ratio of imports from Mexico to consumption:				
Within region.....	9	11	13	11
In all other areas.....	1	1	1	1
Ratio of imports from Japan to consumption:				
Within region.....	1	2	4	5
In all other areas.....	(1)	(1)	1	1
Ratio of imports from Mexico and Japan to consumption:				
Within region.....	10	12	16	16
In all other areas.....	1	1	1	1
Alternative Southern-tier region:				
Share of:				
U.S. producers' shipments within region..	93	93	92	90
Regional consumption supplied by producers outside region.....	10	9	4	10
Imports from Mexico.....	91	89	86	84
Imports from Japan.....	68	71	73	74
Ratio of imports from Mexico to consumption:				
Within region.....	10	12	14	11
In all other areas.....	1	1	1	2
Ratio of imports from Japan to consumption:				
Within region.....	1	2	5	6
In all other areas.....	(1)	(1)	1	1
Ratio of imports from Mexico and Japan to consumption:				
Within region.....	11	14	19	17
In all other areas.....	1	1	2	3

[1] Less than 0.5 percent.

Factors affecting demand

As noted earlier, virtually all portland cement is used in the manufacture of concrete, one of the essential building materials for most types of construction. Thus, the demand for portland cement is highly dependent on general construction activity.

One indicator of construction activity is the number of construction permits authorized. Table 4 presents data on such authorizations for the States in the Southern-tier region and for the country as a whole by type of permit. These statistics show that authorizations of residential permits in the United States declined by over 24 percent from 1986 to 1989. The value of authorizations of nonresidential permits, adjusted for inflation, increased by 0.5 percent from 1986 to 1989.

Overall, the Southern-tier region numbers show a decline in residential construction activity from 1986 to 1989. Authorizations for residential housing dipped by nearly 31 percent from 1986 to 1989. Nonresidential authorizations in the Southern-tier dropped irregularly in real dollar terms by slightly more than 8 percent from 1986 to 1989.

All States in the Southern-tier showed a drop in residential permits, with Texas and Arizona showing the sharpest declines on a percentage basis. Likewise, for nonresidential authorizations, Texas and Arizona showed the greatest declines in construction activity, while Florida, Mississippi, and California exhibited slight, albeit irregular, gains for 1986-89.

Table 4
Authorizations of construction permits for the Southern-tier region[1] and the country as a whole, by types of permit, 1986-89

Item	1986	1987	1988	1989
	Quantity (units)			
Residential:				
Florida	195,525	178,764	170,597	164,707
Alabama	19,180	14,523	12,773	11,492
Mississippi	8,289	6,632	7,396	5,920
Louisiana	10,501	8,520	7,270	6,063
Texas	96,737	50,455	40,479	41,481
New Mexico	11,513	9,268	6,401	6,016
Arizona	61,614	40,181	32,878	23,216
California	314,641	251,824	253,369	237,332
Total	718,000	560,167	531,163	496,227
Total United States	1,769,443	1,534,772	1,455,623	1,340,646
	Value (1,000,000 dollars)			
Nonresidential:[2]				
Florida	5,054	5,231	5,158	5,260
Alabama	837	817	1,069	810
Mississippi	413	362	322	420
Louisiana	863	667	560	809
Texas	5,262	4,224	3,239	3,237
New Mexico	356	212	210	306
Arizona	1,623	1,620	1,468	1,255
California	11,814	11,704	13,014	11,965
Total	26,222	24,837	25,040	24,062
Total United States	71,730	70,927	76,060	72,126

[1] Not available for Alternative Southern-tier region.
[2] Deflated by implicit price deflator.

Source: Compiled from statistics of the U.S. Department of Commerce, Bureau of the Census.

Apparent consumption

Table 5 shows apparent consumption of portland cement and cement clinker for the Southern-tier region and the Alternative Southern-tier region, as well as the portion of consumption supplied by U.S. producers outside those regions. Additionally, table 5 presents total apparent consumption of portland cement for the entire United States.[26]

Regional portland cement consumption represents the total of shipments, as reported in Commission questionnaires, within the respective regions by producers/grinders operating within those regions, plus shipments supplied

[26] Bureau of Mines data have been used for total U.S. apparent consumption.

Table 5
Portland cement and cement clinker: U.S. shipments,[1] production,[2] imports, and apparent consumption, 1986-89, January-March 1989, and January-March 1990

(In 1,000 short tons)

Item	1986	1987	1988	1989	January-March-- 1989	1990
Portland cement:						
Southern-tier:						
Shipments by regional producers/grinders..	22,326	21,600	22,247	23,008	5,176	5,383
Imports from--						
Mexico.....	2,826	3,391	4,031	3,515	822	722
Japan.....	349	487	1,222	1,726	289	320
All other sources...	3,446	3,483	2,785	2,131	606	484
Subtotal.....	6,621	7,361	8,037	7,372	1,718	1,526
Total supplied from--						
Within region.....	28,947	28,961	30,284	30,380	6,894	6,909
Outside region.....	3,378	2,678	1,824	2,611	474	541
Apparent consumption..	32,325	31,639	32,109	32,991	7,368	7,450
Alternative Southern-tier:						
Shipments by regional producers/grinders..	17,516	16,706	17,121	17,644	3,992	4,119
Imports from--						
Mexico.....	2,671	3,107	3,721	2,923	690	668
Japan.....	349	487	1,183	1,487	289	320
All other sources...	3,191	3,252	2,709	1,951	598	405
Subtotal.....	6,211	6,846	7,612	6,361	1,578	1,393
Total supplied from--						
Within region.....	23,727	23,552	24,733	24,005	5,570	5,512
Outside region.....	2,759	2,194	1,109	2,561	554	575
Apparent consumption..	26,486	25,746	25,842	26,566	6,124	6,087
Total United States:						
Apparent consumption..	89,033	90,458	89,856	89,175	15,872	17,295

Table 5--Continued
Portland cement and cement clinker: U.S. shipments,[1] production,[2] imports, and apparent consumption, 1986-89, January-March 1989, and January-March 1990

(In 1,000 short tons)

Item	1986	1987	1988	1989	January-March-- 1989	1990
Cement clinker:						
Southern-tier:						
Production by regional producers	22,447	22,752	23,399	24,724	5,680	5,679
Imports from--						
Mexico	1,040	902	363	313	100	61
Japan	83	0	0	41	0	0
All other sources	1,815	947	530	276	74	69
Total imports	2,938	1,849	893	630	174	130
Apparent consumption	25,385	24,601	24,292	25,354	5,854	5,809
Alternative Southern-tier:						
Production by regional producers	16,839	16,774	17,289	18,554	4,278	4,355
Imports from--						
Mexico	1,040	902	363	313	100	61
Japan	27	0	0	0	0	0
All other sources	1,788	947	530	276	74	69
Total imports	2,855	1,849	893	589	174	130
Apparent consumption	19,694	18,623	18,182	19,143	4,452	4,485
Total United States:						
Production	68,635	68,719	70,439	69,291	(3)	(3)
Imports from--						
Mexico	1,095	1,215	437	423	129	87
Japan	234	37	137	235	25	28
All other sources	2,644	2,436	1,345	1,087	207	196
Total imports	3,973	3,688	1,919	1,745	361	311
Apparent consumption	72,608	72,407	72,358	71,036	(3)	(3)

[1] Includes shipments of portland cement by both producers and grinders.
[2] Production for clinker only.
[3] Not available.

Source: For portland cement, apparent consumption is computed from Bureau of Mines data and information as reported in Inv. No. 731-TA-461 (Preliminary), Gray Portland Cement and Cement Clinker from Japan. For clinker, regional apparent consumption is computed from data submitted in response to questionnaires of the U.S. International Trade Commission and official import statistics of the U.S. Department of Commerce. Total United States clinker consumption is computed from Bureau of Mines data and official import statistics of the U.S. Department of Commerce.

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

from U.S. producers outside the regions,[27] plus imports[28] into the regions.[29]

Given cement clinker's status as an intermediate material used in the production of finished portland cement, data on consumption, production, capacity, and capacity utilization must be evaluated separately for cement clinker and finished portland cement in order to avoid double counting or other aberrations. Consumption of cement clinker for the regions is the total of within-region production reported in questionnaires plus official statistics on imports into the region.

In the Southern-tier, consumption of portland cement rose irregularly, by 2 percent, from 1986 to 1989. For the Alternative Southern-tier, consumption fluctuated, showing only the slightest of gains from 1986 to 1989. For both regions, cement clinker consumption experienced little change from 1986 to 1989; however, regional producers increased their share of consumption, with the share supplied by imports dropping over the period.

U.S. producers

According to the Bureau of Mines, there were 134 active cement manufacturing plants operating in the United States in 1989, down from 141 in 1986. The list of plants includes 10 operations solely for the grinding of imported, purchased, or interplant transfers of clinker.

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[27] To obtain the share of regional consumption supplied by producers or importers located outside the regions, Commission staff subtracted producers' shipments reported in Commission questionnaires and imports into the regions as reported in official import statistics of the Department of Commerce from the State consumption figures for California, as reported in Inv. No. 731-TA-461 (Preliminary), plus the State total consumption figures for the other seven states in the Southern-tier as reported by the Bureau of Mines. For the Alternative Southern-tier, the same approach was used, using southern California consumption from the aforementioned source, Bureau of Mines consumption figures for Florida, Texas, New Mexico, and Arizona, and consumption for the States of Alabama, Mississippi, and Louisiana, based on staff estimates derived from Bureau of Mines consumption figures for those States. Ideally, the difference between the figures, for both regions, would provide the quantity of shipments into the regions from sources outside the respective regions.

[28] For imports, official statistics of the U.S. Department of Commerce have been used. Examination of the responses to Commission importer questionnaires indicates that, with the exception of the New Orleans district, virtually all imports entering the Southern-tier region are shipped within the region. Hence, it is assumed, with the exception of New Orleans, that the imports shown in the official statistics are shipped within the region they are received. To the extent any of these imports are shipped outside the region, consumption for a given region may be slightly overstated. Based on staff's analysis of importer questionnaires of those importers who brought portland cement through New Orleans, 66 percent of the import tonnage for New Orleans was assigned to the Southern-tier region (54 percent in the case of the Alternative Southern-tier region). Importer questionnaires received in this investigation accounted for nearly all Mexican product received in New Orleans. For clinker, with the exception of 1986, all imports through New Orleans, were excluded from both regions.

[29] In calculating consumption, there were no export shipments to be extracted from overall shipments data.

Foreign ownership of U.S. cement plants is high and growing, with a number of facilities changing hands since 1986. According to the January 1989 ROI Cement Industry Research Reports publication "The Organization of the North American Cement Industry," the greatest changes in the North American cement industry "more than anything else over the past decade have been the great increase in joint ventures and foreign ownership, especially by international cement companies." In 1989, 67 of the plants in the United States were operated by foreign ownership or joint ventures with foreign-owned participants.

Holderbank Financiere Glaris Ltd. of Switzerland (Holderbank) is involved in operations totaling 16.3 million tons capacity in the United States and Canada and 4.6 million tons in Mexico. Lafarge Coppee (Lafarge) of France has full or partial ownership interests in 13.1 million tons in the United States and Canada and Blue Circle Industries PLC (Blue Circle) of the United Kingdom (UK) has cement interests of 3.6 million tons in the United States.

Lonestar Industries (Lonestar) fully owns and operates 4.8 million tons of cement capacity in the United States and has joint-venture interests totaling another 3.9 million tons. Lonestar purchased many of its U.S. cement assets in the 1970s, becoming the largest cement company in the United States. In the 1980s, however, Lonestar has either sold many of its assets entirely or included them in joint ventures. Cementos Mexicanos (Cemex) currently operates 25.2 million tons of cement capacity, all in Mexico, 7.3 million tons of which was acquired from Blue Circle in 1989. Additionally, Cemex has formed several joint ventures with U.S. cement companies in recent years.

A number of the firms in the Southern-tier are integrated, with the degree of integration varying considerably. Among those owning aggregate operations (raw materials) and/or ready-mix and concrete product operations (e.g., concrete block, concrete pipe, prestressed concrete, etc.) are petitioners Southdown, Inc.; Florida Crushed Stone (FCS); Gifford-Hill & Co., Inc. (Gifford-Hill); and Texas Industries, Inc. (TXI). Other integrated producers include Rinker Materials Corp. (Rinker); Tarmac Roadstone USA, Inc. (Tarmac); Alamo Cement Co. (Alamo); Capitol Aggregates, Inc.; Gulf Coast Portland Cement Co. (Gulf Coast); and CalMat Co. (CalMat).

Within the Southern-tier, there are presently 38 active producer/grinder operations, with 4 being grinder only operations (fig. 3).[30] Six of the facilities are in Florida. Florida Crushed Stone (FCS) in Brooksville, FL, is the newest of the Florida facilities, having begun operations in 1987. Florida Mining and Minerals Corp. (FM&M), also located in Brooksville, is owned by Southdown, an owner of cement plants throughout the United States including facilities in Texas and California. Southdown purchased FM&M in July 1988 as part of its purchase of Moore McCormack Resources, Inc. Tarmac operates a plant in Pennsuco, FL. Tarmac began operation of the Pennsuco facility in March 1988 as a joint venture with Lonestar, then purchased the remainder of the venture in late 1988. ***.

Rinker is located in Miami, FL, and in 1988 was purchased by CSR Limited of Australia. ***. Lafarge of Tampa, FL, and National Portland Cement Co. of Palmetto, FL, operate grinding facilities at those locations. Both firms import clinker from Mexico as well as other sources, among them Colombia, Spain, and Venezuela, for grinding into portland cement. Lafarge has cement operations throughout the United States, including plants in Alabama and Texas. ***.

[30] Figure 4 presents the Alternative Southern-tier region.

Figure 3
Portland cement and cement clinker: Locations of U.S. producers' facilities in the Southern tier region, 1986-89

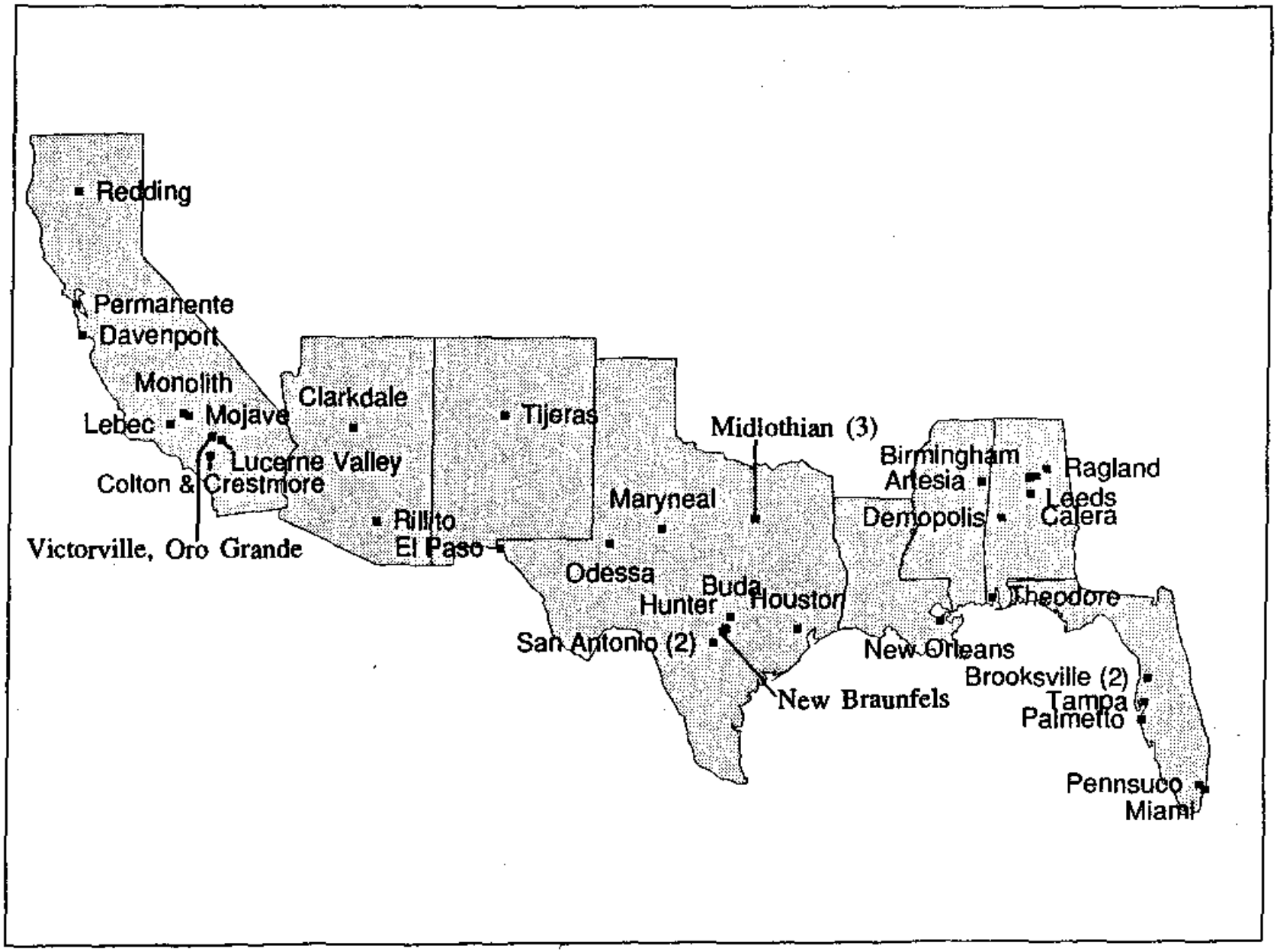
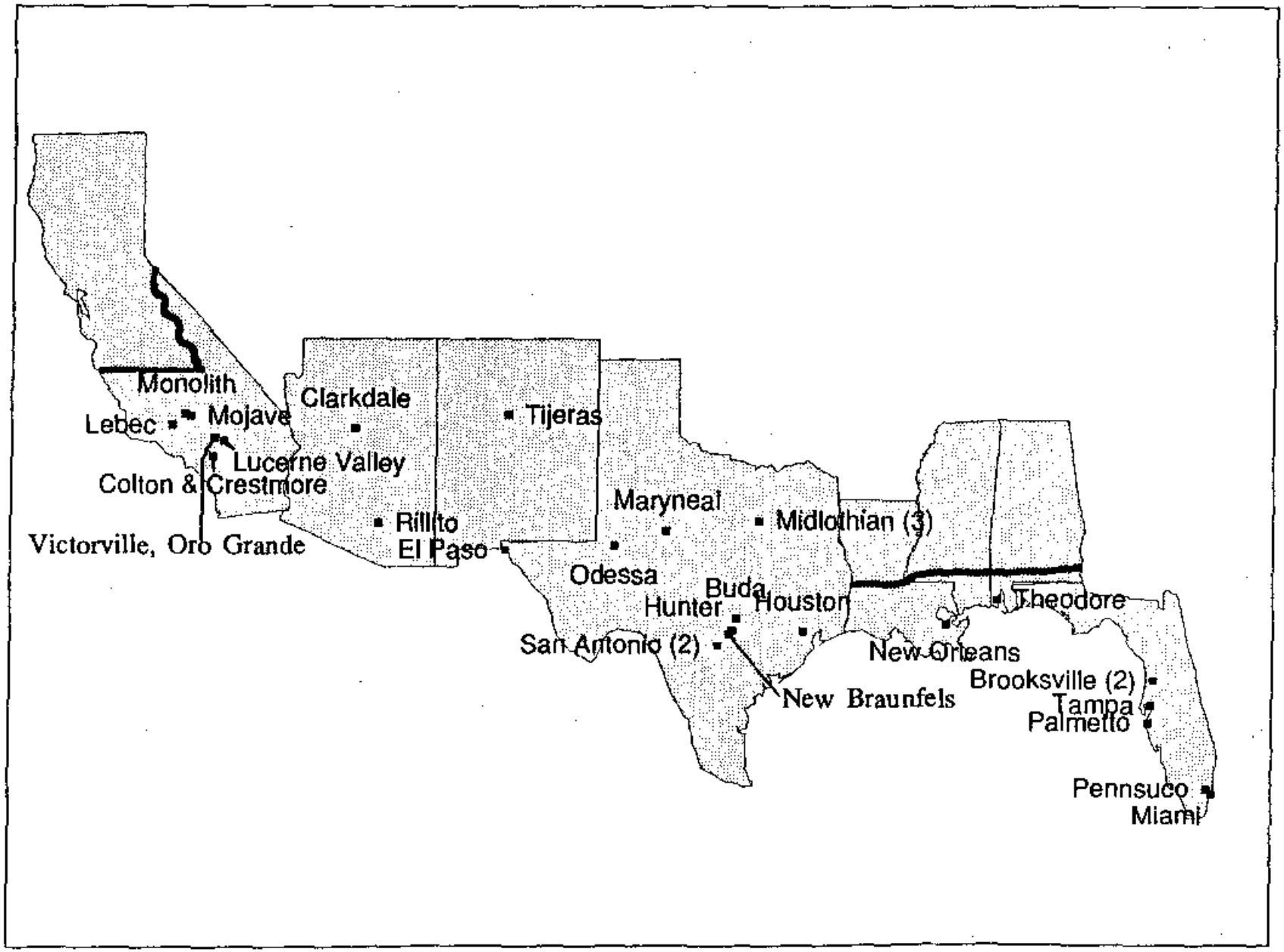


Figure 4
Portland cement and cement clinker: Locations of U.S. producers' facilities in the alternative Southern tier region, 1986-89



Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

There are currently six producers in the State of Alabama. Four are in the Birmingham area. The others are located in Demopolis,[31] west of Montgomery, in west-central Alabama, and in Theodore on the coast of the Gulf of Mexico. Blue Circle operates a facility in Calera, AL,[32] near Birmingham, and ***. National Cement Co. (National) is in Ragland, AL,[33] and ***. National is owned by Societe Anonyme des Ciments Vicat of France, which also owns National Cement of California, a petitioner in the ongoing preliminary investigation concerning portland cement from Japan. Lehigh Portland Cement Co. (Lehigh) operates a facility in Leeds, AL,[34] and ***. Lehigh's ultimate parent is Heidelberger Zement AG of West Germany. The other facility located in northern Alabama is the Allied Products Co. (Allied) of Birmingham, AL.[35] Allied was purchased in August 1989 by Ideal Basic Industries, Inc. (Ideal).[36] Ideal is owned by Holderbank of Switzerland (Holnam, Inc., for its operations in the United States) and has a number of cement plants around the country, particularly in the Western United States. Ideal is a member of the petitioning group in this investigation. In addition to Allied, Ideal also operates a facility in Theodore, AL, near Mobile. Ideal began production in Theodore in 1981 and from October 1984 to August 1988 used imported clinker from Mexico to produce portland cement. The importation of clinker was necessitated by raw material problems that led Ideal to suspend clinker production in October 1984. Clinker production resumed at Theodore in October 1988. Ideal's clinker imports ceased thereafter. The remaining production facility in Alabama is LaFarge's plant at Demopolis.

There is one plant in Mississippi, in the east central part of the State at Artesia.[37] The facility is owned by TXI,[38] which also operates two plants in Texas and is a member of the petitioning group. There are currently no active cement plants in Louisiana. In 1987, Lonestar closed its New Orleans facility stating "the basic reason plant closed was economics." Ideal leased the facility from Lonestar and presently operates it as an import terminal.

There are currently 13 active producers and one grinder operation in Texas, New Mexico, and Arizona. Ten producers are located in Texas, one in New Mexico, and two in Arizona. The single grinder operation is located in Texas. BoxCrow Cement (BoxCrow), Gifford-Hill, and TXI operate facilities located in Midlothian, TX. In addition, TXI operates a cement plant at Hunter, TX. Gifford-Hill, owned by C.H. Beazer Holdings PLC of the United Kingdom, has three other facilities in the United States, with two of them, operating as Riverside Cement, located in southern California. All three companies are in support of the petition as members of the petitioning group.

Alamo, owned by Presa SpA Cementeria de Robilante of Italy, and Capitol Aggregates, Inc., operate cement plants in San Antonio, TX. ***.

Lafarge and Southdown have producing operations at New Braunfels, TX, and Odessa, TX, respectively. Southdown closed facilities in El Paso, TX, in 1985, and entered into a joint venture with Cemex to import portland cement

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[31] Would be excluded from the Alternative Southern-tier region.
[32] Ibid.
[33] Ibid.
[34] Ibid.
[35] Ibid.
[36] ***.
[37] Would be excluded from Alternative Southern-tier region.
[38] In June 1990, Ideal announced it had agreed to purchase TXI's Artesia facility. Final details with regard to the purchase are presently being completed.

from the latter's plants in Mexico and use the El Paso facility as a distribution terminal. Southdown states in its questionnaire that ***. At the public hearing held in conjunction with this investigation, Mr. Clarence Comer, President and CEO of Southdown, further stated, "Management's primary concern in establishing the venture was to protect the value of its remaining investments in California and Texas." [39] [40] In October 1987, Southdown closed its Amarillo, TX, manufacturing facilities, citing ***. Lafarge closed its Fort Worth, TX, plant in October 1986 and its Dallas, TX, plant in February 1988 due to ***.

Lonestar currently operates one portland cement manufacturing facility located in Maryneal, TX. In 1985, Lonestar closed its Houston, TX, cement facility. Lonestar operates other facilities around the United States, including a joint venture operation, RMC Lonestar, located in California. Lonestar has ***. Texas-Lehigh is a joint venture producer located in Buda, TX, owned equally by Centex Corp. and Lehigh.[41] Prior to 1987, Lehigh

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[39] U.S. International Trade Commission, Transcript of Public Hearing (hereinafter "Transcript"), July 19, 1990, p. 14. In its 1986 Annual Report, Southdown states, in part, "In early 1986, the Company entered into various agreements with Cementos Mexicanos, S.A., (Cemex), the largest producer of portland cement in Latin America, under which cement is imported and marketed in areas of the United States contiguous to the Mexican border. The arrangement includes the operation of cement terminals in El Centro and San Diego, California; Phoenix, Arizona; Albuquerque, New Mexico; and El Paso, Texas. Marketing operations are conducted by Southwestern Sunbelt Cement (Sunbelt), a general partnership organized under the Texas Uniform Partnership Act, which is a joint venture 50% owned by a subsidiary of Southwestern and 50% owned by a subsidiary of Cemex. The joint venture agreement provides for a term of twenty years, but may be terminated at any time by mutual agreement of the parties.

"Under terms of the various agreements, Cemex supplies clinker and finished cement to Sunbelt to be marketed from the various terminals. Southwestern also supplies cement to Sunbelt if requested. Southwestern is responsible for management of the terminal facilities and marketing of cement for which Southwestern receives a management fee from Sunbelt based on the quantities of cement imported. Earnings from the sale of cement by Sunbelt are shared equally between Cemex and Southwestern after deducting all costs and expenses of Sunbelt, including the management fee to Southwestern." Southdown Inc., 1986 Annual Report, pp. 32-33.

[40] Respondents counter that this joint venture as well as others entered into by Cemex were beneficial to the U.S. producers. At the hearing counsel for Cemex stated that "U.S. cement producers rely on imports in this market. As a decision, a strategic decision to maximize income, they rely on imports to supplement their own production. They go out and get the imports. This is not a case in which foreign producers are coming into the United States and seeking customers to expand market share here. It's a case of an importer constituency, primarily composed of domestic producers, that uses imports, that relies on imports, and goes to the foreign producers, whether it is Mexico or somewhere else, to bring in those imports. When they do it, they control the prices." Transcript, p. 145.

[41] Texas-Lehigh is also a joint venture participant in Texas Sunbelt Cement, an importer of product from Mexico. The joint venture was formed in 1986 with a subsidiary of Cemex. Under the terms of the joint venture in which Centex effectively has a 25-percent interest, cement produced by Cemex is being imported and marketed by Texas Sunbelt in the Corpus Christi, lower Rio Grande Valley and San Antonio geographic areas, providing a source of

(continued...)

operated a facility in Waco, TX, but it shut down that plant "because of poor market conditions." Centex Corp. ***.

The lone grinder in the Southwest is Gulf Coast located in Houston, TX. Gulf Coast was purchased by Sunstar Cement Corp., a Cemex company, in August 1989 and imports clinker for grinding from Mexico, Spain, and Colombia as well as purchasing clinker from domestic producers. Gulf Coast ***.

Ideal produces portland cement at its facility in Tijeras, NM. The Tijeras facility is one of a number Ideal owns in the Western part of the country. Phoenix Cement Co. (Phoenix) is in Clarkdale, AZ, north of Phoenix, AZ. Phoenix is owned by the Salt River Pima-Maricopa Indian Community, which purchased the facility from Gifford-Hill in May 1987. The other cement plant in Arizona is owned by the CalMat Co. and located in Rillito, near Tucson. CalMat is indirectly controlled by Onoda Cement Co., Ltd.,[42] of Japan and has two other cement plants located in California. Ideal and Phoenix are members of the petitioning group, and CalMat ***.

There are presently 10 active producers and one grinder operation in California. Seven of the producers and the one grinder operation are located in southern California, and the other three producers are located in the northern part of the State.

Southdown, which also has plants in Florida and Texas, operates a plant in Victorville in southern California. Gifford-Hill,[43] operating as Riverside Cement, has two southern California facilities--one a producer and the other a grinder operation. The producer is located in Oro Grande and the grinder in Crestmore. The Crestmore facility has been a grinder operation since August 1987, ***. As noted earlier, both Southdown and Gifford-Hill support the petition.

CalMat has manufacturing facilities located in Colton and Mojave in southern California. National Cement of California[44] produces portland cement at its plant located in Lebec, CA. This plant was purchased from a subsidiary of Lafarge in November 1987. National Cement of California ***. Mitsubishi

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[41](...continued)
supply for Texas Sunbelt's south Texas terminals. In its 1987 Annual Report, Centex said the action was taken as part of its repositioning itself to take best advantage of the Texas market that was in a weak overall economic condition.

In discussing the problems with the Texas market in that same report, Centex went on to say, "The overall economic environment is weak due to the precipitous drop in the price of oil and gas plus substantial overbuilding of various real estate projects such as office buildings, industrial warehouses and apartments. In addition, product capacity had been increased in anticipation of a continuing economic boom, an oversupply situation which will intensify in fiscal 1988 with the opening of a new one million ton cement plant in North Texas. Finally, foreign imports continue to destabilize the market. Cement consumption in the states declined more than 20 percent in fiscal 1987 and prices in Texas were about one-half of the levels in some other states."

[42] Onoda has an option to purchase CalMat which can be exercised for a period of 12 months, after Aug. 31, 1990. ***.

[43] ***.

[44] National Cement of California is a member of the petitioning group in the ongoing investigation concerning imports of portland cement and clinker from Japan.

Cement Co. (Mitsubishi) operates a producer facility in Lucerne Valley, CA. Mitsubishi is owned by Mitsubishi Mining & Cement Co., Ltd., of Japan, which purchased the plant from Kaiser Cement Corp. (Kaiser) in 1988. Mitsubishi has ***.[45]

The remaining producer in southern California is Calaveras Cement Co. (Calaveras), with its plant in Monolith, CA. The Monolith plant was purchased in March 1989.[46] Calaveras is owned by Cimentaries CBR, S.A., of Belgium and also operates a plant in northern California at Redding.[47] Kaiser and RMC Lonestar have production facilities located south of San Francisco in Permanente, CA,[48] and Davenport, CA,[49] respectively. RMC Lonestar is a joint venture of California Readymix, Inc., and Lonestar. RMC Lonestar ***.

U.S. importers

On a national basis, U.S. producers, grinders, and importers having an affiliation with foreign producers (either through direct ownership or a joint-venture operation) account for many of the imports of portland cement and clinker from all sources into the United States.[50] In the Commission's 1986 investigation, U.S. producers[51] responding to questionnaires accounted for nearly 40 percent of all portland cement imported into the United States during 1985. Given cement clinker's status as an intermediate product in the production of portland cement, all of the clinker would be imported by or for U.S. producer or grinder operations.

In the Southern-tier region, importers accounting for nearly all imports of portland cement and clinker from Mexico during the period of investigation responded to the Commission's questionnaire. The two Florida grinder operations, National Portland and Lafarge, accounted for *** the clinker imports into Florida from Mexico. Both firms import clinker from ***. Lafarge also imported finished portland cement from Mexico and accounted for nearly *** percent of imports from Mexico into Florida during 1989. Rinker, a producer in Miami, FL, was the *** Florida importer of portland cement from Mexico in 1988. Rinker's imports of portland cement from Mexico, as a share of its shipments of product from its Miami plant, were *** percent in 1989. Ideal imported portland cement into Tampa for a portion of the investigative period as well as importing clinker for use in its Theodore, AL, production facility. Other importers in Florida included ***.

Missouri Portland Cement Co., of Davenport, IA, owned by Cementia Holdings, AG, of Switzerland, and Ideal both imported portland cement from Mexico through New Orleans. Missouri Portland, which does not produce in the Southern-tier region, accounted for *** of Mexican product coming into New

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[45] ***.

[46] In 1986, Monolith filed for financial reorganization under Chapter 11 of the Bankruptcy Code. Monolith emerged from Chapter 11 approximately one year later. In mid-1988, Monolith entered into a letter of intent to sell its cement operations to CBR, with the contract being closed in early 1989. Petitioners' pre-hearing brief, Exhibit 24 at p. 6.

[47] Calaveras' Redding facility would be excluded from the Alternative Southern-tier region.

[48] Would be excluded from the Alternative Southern-tier region.

[49] Ibid.

[50] Imports from Mexico by U.S. producers and grinders in the Southern-tier region are shown in table 6.

[51] Including grinders.

Table 6
Portland cement and cement clinker: U.S. producers' imports from Mexico into the Southern-tier, by firms, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Quantity (1,000 short tons)					
Portland cement:						
* *	*	*	*	*	*	*
Cement clinker:						
* *	*	*	*	*	*	*
	Imports from Mexico as a ratio to company's Southern-tier production (percent)					
Portland cement:						
* *	*	*	*	*	*	*
Cement clinker:						
* *	*	*	*	*	*	*
	Imports from Mexico as a share of company's total imports from all sources (percent)					
Portland cement:						
* *	*	*	*	*	*	*
Cement clinker:						
* *	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Orleans. Slightly over *** percent of Missouri Portland's imports through New Orleans are off-loaded onto barges and transported up the Mississippi River to its terminals in Memphis, TN, and St. Louis, MO. Ideal, which leases the New Orleans production facility closed by Lonestar in 1987, ships most of its imports within the Southern-tier region.

In Texas, Gulf Coast was *** importer of clinker, with the imports destined for use in its Houston grinding facility. Four other importers, BCW, Inc., Lonestar-Falcon, Texas Sunbelt Cement (Texas Sunbelt), and Southwestern Sunbelt Cement (Southwestern Sunbelt), accounted for nearly all imports from Mexico of portland cement into Texas, New Mexico, Arizona, and California. With the exception of Lonestar-Falcon, these importers are either directly owned by Cemex subsidiaries or participants in joint ventures with Cemex. In general, Cemex owns or controls most of the import marketing and/or concrete operations in areas that receive its exports. The exception in the Southern-tier is Florida where, as noted earlier, U.S. firms are the largest importers of Cemex product.[52]

BCW, Inc. has three terminals in Arizona and prior to its 1989 purchase by Cemex was owned equally by three Mexican firms: Empress Tolteca de Mexico S.A. de C.V. (Tolteca), Cementos Portland Nacional, and Cementos del Pacifico. Tolteca was acquired by Cemex in 1989. BCW, Inc., has import terminals in California as well. Lonestar-Falcon, located in Dallas, TX, is a joint venture of Lonestar and Falcon Investments of Richmond Hill, GA. Texas Sunbelt has three import terminals in the southern part of Texas, at Corpus Christi, McAllen, and San Antonio. As noted earlier, Texas Sunbelt is a joint venture of Cemex and Texas-Lehigh.[53]

Southwestern Sunbelt has import terminals in El Paso, TX; Albuquerque, NM; Phoenix, AZ; El Centro, CA; and San Diego, CA. Southwestern Sunbelt was a joint venture of Cemex and Southdown, a U.S. producer, until 1989, when Cemex purchased Southdown's portion of the venture.[54] [55]

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[52] Prehearing brief filed on behalf of Cemex, S.A. and the Cement Free Trade Association, Exhibit 108, North American Cement Review by Douglas Queen.

[53] Texas Sunbelt's imports of portland cement for 1986, 1987, 1988, and 1989, respectively, amounted to ***.

***.

[54] According to Southdown's 1989 Annual Report, the joint venture was dissolved on Sept. 8, 1989, when Southdown sold its 50-percent interest to an affiliate of Cemex for $1.5 million resulting in a $500,000 gain from the transaction. Southdown further notes that it recognized earnings of $676,000, $1.2 million, and $3.9 million, respectively, for the years ended Dec. 31, 1989, 1988, and 1987 as its share of earnings from the joint venture. Southdown stated that it "does not anticipate any material impact on its operations resulting from the dissolution." Southdown 1989 Annual Report, p. 30.

At the public hearing in this investigation, Mr. Clarence Comer, President and CEO of Southdown stated, "In the final stages leading to the dissolution of the import operation, Cemex forced the profitability out of the venture leaving nothing for Southdown. After taking Southdown's 600,000-ton customer base in the El Paso, Albuquerque, Phoenix, and San Diego markets, Cemex demanded a continuously increasing share of the joint-venture revenue stream in the form of reduced management fees to Southdown and higher transfer prices to Cemex." Transcript, p. 15.

At the hearing, Mr. Jose Trevino Salinas, Director of International Operations, Cemex, S.A. spoke of the joint venture saying, in part, "The (continued...)

Consideration of Alleged Material Injury to an Industry in the United States[56]

The data in this section come from responses to the Commission's questionnaires sent to producers in the Southern-tier region. With the exception of three facilities,[57] all producers in the Southern-tier provided questionnaire responses. The responding producers accounted for 96 and 95 percent, respectively, of active capacity for 1989 in the Southern-tier and Alternative Southern-tier. Two of the three non-respondents changed hands during the period of investigation and what, if any, information they provided was unusable. The other, ***, ***.

Data and text in this section are presented separately for firms in the Southern-tier and the Alternative Southern-tier.

U.S. production, capacity, and capacity utilization

Table 7 details production of portland cement ground from producers' own clinker, from imported clinker, and from purchased clinker as well as providing data on clinker production.

Southern tier.--Capacity to produce both portland cement and clinker remained relatively level during January 1986-March 1990. Southern-tier production of portland cement stayed essentially level during 1986-88, then increased by 6.3 percent from 1988 to 1989. Producers in Florida and California generally reported increases in production, whereas producers in Texas, New Mexico, and Arizona generally reported the opposite. Producers in Alabama and Mississippi experienced somewhat irregular increases for 1986 to 1988 with most reporting drops in production from 1988 to 1989. Clinker production increased each year from 1986 to 1989, going up 10.4 percent over the period. Producers in Florida and California, as well as the resumption of clinker production by Ideal's Theodore, AL, facility, accounted for most of the increase. Capacity utilization for portland cement went up irregularly from 71.4 percent in 1986 to 75.1 percent in 1989, with utilization rates for clinker following a similar pattern, rising from 80.5 percent to 89.7 percent. Utilization rates generally increased for Florida and California producers, while producers in the other Southern-tier states experienced declining utilization rates.

Alternative Southern-tier.--Like the Southern-tier, capacity to produce portland cement remained essentially level over the period of investigation. Production dropped irregularly, by 1.5 percent, from 1986 to 1988, before

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[54](...continued)
Southwestern Sunbelt joint venture was a great success for Southdown. If anyone challenges that, I would suggest they read the glowing remarks in Southdown's annual reports. At Cemex, however, there were problems that became progressively more serious. We tried repeatedly to persuade our U.S. partner to accept higher prices. We were only partly successful. The increase we did persuade them to accept was a major reason they became dissatisfied with the joint venture." Transcript, p. 168.

[55] Southwestern Sunbelt's imports of portland cement from Mexico for 1986, 1987, 1988, and 1989, respectively, amounted to ***.

[56] Trade and financial data by plant are presented in app. E.

[57] ***.

Table 7
Portland cement and cement clinker: U.S. capacity, production, and capacity utilization, by products and by regions, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Production (1,000 short tons)					
Southern-tier region:						
Portland cement from--						
Firms' cement clinker	22,115	22,093	22,946	24,394	5,127	5,444
Imported cement clinker	2,199	1,750	995	542	140	107
Purchased cement clinker	157	281	845	753	170	178
Total	24,471	24,124	24,786	25,689	5,437	5,728
Cement clinker	22,447	22,752	23,399	24,724	5,680	5,679
Alternative Southern-tier region:						
Portland cement from--						
Firms' cement clinker	16,557	16,070	16,705	18,290	3,899	4,089
Imported cement clinker	2,127	1,714	995	542	140	107
Purchased cement clinker	147	281	845	729	170	178
Total	18,831	18,065	18,545	19,561	4,209	4,374
Cement clinker	16,839	16,774	17,289	18,554	4,278	4,355
	End-of-period capacity (1,000 short tons)					
Southern-tier region:						
Portland cement	34,279	35,126	34,332	34,211	8,477	8,495
Cement clinker	27,897	28,508	27,040	27,535	6,745	6,807
Alternative Southern-tier region:						
Portland cement	27,774	28,521	27,572	27,381	6,788	6,800
Cement clinker	21,656	22,191	20,630	21,080	5,165	5,220
	Capacity utilization (percent)[1]					
Southern-tier region:						
Portland cement	70.1	68.3	72.2	75.1	64.1	67.4
Cement clinker	80.5	79.8	86.4	89.7	84.0	83.4
Alternative Southern-tier region:						
Portland cement	66.2	62.9	67.3	71.4	62.0	64.3
Cement clinker	78.4	76.1	83.6	88.0	82.6	83.4

[1] Computed from data of firms supplying both production and capacity information.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

showing an increase of 5.4 percent from 1988 to 1989. Clinker production was up over the period of investigation, due to the aforementioned increases experienced by producers in Florida, California, and Alabama.

Capacity utilization figures were up irregularly for portland cement, going from 67.8 percent in 1986 to 71.4 percent in 1989. Clinker utilization numbers followed the same pattern, rising from 77.8 percent in 1986 to 88.0 percent in 1989.

U.S. producers' shipments of portland cement

Table 8 presents domestic shipments data for portland cement. Data are presented on a within- and outside-region basis.

Southern-tier.--For the Southern-tier, more than 89 percent of shipments occurred within the region where the product is produced. This was true for all the reporting periods of the investigation. The highest concentration of within-region shipments was achieved in 1986 at nearly 91 percent. No exports were reported by any of the producers responding to Commission questionnaires. Producers in Florida, Texas, New Mexico, Arizona, and California had the highest concentration of within-region shipments, at more than 90 percent over the period of investigation, whereas those in Alabama and Mississippi showed within-region shipments of about 55 percent over the same time period.

Within-region shipments in the Southern-tier increased irregularly by 3.0 percent from 1986 to 1989, with outside-region and total shipments increasing 21.5 percent and 4.7 percent, respectively, for the same period.[58] Within-region shipments for producers in Texas, New Mexico, and Arizona declined by more than 11 percent over the period of investigation, while those of producers in Florida and California registered gains of 10 and 13 percent, respectively. Shipments by producers in Alabama and Mississippi moved irregularly upward, by nearly 18 percent, with Ideal's Theodore, AL, plant accounting for most of the gain.

The value of within-region shipments and total shipments dropped irregularly, by 4.8 and 3.6 percent, respectively, during 1986-89. The value of outside-region shipments increased irregularly, by 8.6 percent, over the same period. The value of shipments for Texas, New Mexico, and Arizona producers dropped from 1986 to 1989 as producers in the other Southern-tier States generally experienced an increase in the value of sales.

[58] In its questionnaires, the Commission also asked all respondents to furnish within/outside-region shipment data for portland cement using petitioner's Alternative Southern-tier region definition (e.g., excluding the non-coastal counties of Alabama, Mississippi, and Louisiana, and northern California from the region). Using that definition, within-region shipments by Alternative Southern-tier producers ranged between 90 and 93 percent during 1986-89.

With respect to the producers excluded from the Alternative Southern-tier, northern California producers reported few, if any, shipments into the Alternative region. Producers in northern Alabama and Mississippi reported less than 10 percent of their aggregate shipments going into the Alternative region: Of those producers, ***, on average, during 1986-89. ***.

Table 8
Portland cement: Shipments of U.S. producers,[1] by regions, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Quantity (1,000 short tons)					
Southern-tier region:						
Within region shipments:						
Company transfers.....	3,441	3,438	3,616	3,876	954	853
Domestic shipments....	18,885	18,162	18,631	19,132	4,222	4,530
Subtotal.....	22,326	21,600	22,247	23,008	5,176	5,383
Outside-region shipments:						
Company transfers.....	293	273	462	466	87	97
Domestic shipments....	1,926	2,108	2,219	2,231	469	454
Subtotal.....	2,219	2,381	2,681	2,697	556	551
Total shipments.....	24,545	23,981	24,928	25,705	5,732	5,934
Alternative Southern-tier region:						
Within region shipments:						
Company transfers.....	3,274	3,304	3,601	3,798	941	823
Domestic shipments....	14,242	13,402	13,520	13,846	3,051	3,296
Subtotal.....	17,516	16,706	17,121	17,644	3,992	4,119
Outside-region shipments:						
Company transfers.....	98	145	151	163	42	26
Domestic shipments....	1,154	1,117	1,416	1,867	429	385
Subtotal.....	1,252	1,262	1,567	2,030	471	411
Total shipments.....	18,768	17,968	18,688	19,674	4,463	4,530
	Value (1,000 dollars)					
Southern-tier region:						
Within region shipments:						
Company transfers.....	158,955	156,456	161,157	175,646	43,541	39,517
Domestic shipments....	941,232	827,492	822,217	871,492	191,972	213,925
Subtotal.....	1,100,187	983,948	983,374	1,047,138	235,513	253,442
Outside-region shipments:						
Company transfers.....	12,993	10,604	17,219	18,035	3,347	3,683
Domestic shipments....	91,347	87,742	92,773	95,135	20,322	19,031
Subtotal.....	104,340	98,346	109,992	113,170	23,669	22,714
Total shipments.....	1,204,527	1,082,294	1,093,366	1,160,308	259,182	276,156

See footnotes at end of table.

Table 8--Continued
Portland cement: Shipments of U.S. producers,[1] by regions, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Value (1,000 dollars)					
Alternative Southern-tier region:						
Within region shipments:						
Company transfers.....	152,928	151,000	160,425	172,294	42,997	38,207
Domestic shipments....	696,589	602,990	564,274	599,733	132,758	144,157
Subtotal.....	849,517	753,990	724,699	772,027	175,755	182,364
Outside-region shipments:						
Company transfers.....	3,410	4,980	5,325	6,089	1,555	1,147
Domestic shipments....	61,673	55,281	65,035	85,529	19,604	18,081
Subtotal.....	65,083	60,261	70,360	91,618	21,159	19,228
Total shipments.....	914,600	814,251	795,059	863,645	196,914	201,592
	Unit value (per short ton)[2]					
Southern-tier region:						
Within region shipments:						
Company transfers.....	$46.19	$45.51	$44.57	$45.32	$45.63	$46.33
Domestic shipments....	49.84	45.56	44.13	45.55	45.47	47.22
Average.....	49.28	45.55	44.20	45.51	45.50	47.08
Outside-region shipments:						
Company transfers.....	44.34	38.84	37.27	38.70	38.47	37.97
Domestic shipments....	47.43	41.62	41.81	42.64	43.33	41.92
Average.....	47.02	41.30	41.03	41.96	42.57	41.22
Average, all.....	49.07	45.13	43.86	45.14	45.22	46.54
Alternative Southern-tier region:						
Within region shipments:						
Company transfers.....	46.71	45.70	44.55	45.36	45.69	46.42
Domestic shipments....	48.91	44.99	41.74	43.31	43.51	43.74
Average.....	48.50	45.13	42.33	43.76	44.03	44.27
Outside-region shipments:						
Company transfers.....	34.80	34.34	35.26	37.36	37.02	44.12
Domestic shipments....	53.44	49.49	45.93	45.81	45.70	46.96
Average.....	51.98	47.75	44.90	45.13	44.92	46.78
Average, all.....	48.73	45.32	42.54	43.90	44.12	44.50

[1] There were no export shipments reported by U.S. producers responding to Commission questionnaires.
[2] Computed using data from firms providing information on both quantity and value of shipments.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Unit values of shipments, regardless of destination, fell irregularly by between 7.5 percent and 10.7 percent. Florida producers experienced an increase in the unit value of their sales, while producers in the other Southern-tier states generally registered declines in unit value.

Alternative Southern-tier.--Producers in the Alternative Southern-tier shipped more than 90 percent of their portland cement within-region during the period of investigation. The highest level of within-region shipments was attained in 1986, at 100 percent; it then dropped to 95 percent in 1989.

Within-region shipments increased irregularly, by 0.7 percent, from 1986 to 1989, while outside-region shipments rose steadily, by 62.1 percent, over the same period. The value of within-region shipments showed an irregular 9.1 percent drop from 1986 to 1989 as the value of outside-region shipments was increasing by 40.8 percent. Unit values for both categories of shipments dropped irregularly from 1986 to 1989; within-region unit values declined by 9.7 percent and outside-region unit values fell by 13.2 percent.

U.S. producers' shipments of clinker

Table 9 presents shipment data with respect to clinker. As noted earlier, most domestically produced clinker is used captively by the producer to produce finished portland cement. Consequently, shipments in this category are rather small when compared with shipments of portland cement. For instance, in 1989, Southern-tier shipments of clinker were slightly over 5 percent of portland cement shipments on a quantity basis, and just under 3 percent on a value basis. For Alternative Southern-tier producers, these numbers amounted to slightly under 7 percent on a quantity basis and just under 4 percent on a value basis. For both regions, 92 percent or more of clinker shipments were within-region during the period of investigation.

Table 9
Cement clinker: Shipments of U.S. producers,[1] by regions, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Quantity (1,000 short tons)					
Southern-tier region:						
Within region shipments:						
Company transfers.....	125	403	494	577	96	92
Domestic shipments....	57	393	763	687	161	186
Subtotal.....	182	796	1,257	1,264	257	278
Outside-region shipments:						
Company transfers.....	0	0	63	48	0	12
Domestic shipments....	0	64	53	31	0	13
Subtotal.....	0	64	116	79	0	25
Total shipments.....	182	860	1,373	1,343	257	303
Alternative Southern-tier region:						
Within region shipments:						
Company transfers.....	125	403	494	577	96	92
Domestic shipments....	57	393	763	687	161	186
Subtotal.....	182	796	1,257	1,264	257	278
Outside-region shipments:						
Company transfers.....	0	0	63	48	0	12
Domestic shipments....	0	9	45	25	0	13
Subtotal.....	0	9	108	73	0	25
Total shipments.....	182	805	1,365	1,337	257	303
	Value (1,000 dollars)					
Southern-tier region:						
Within region shipments:						
Company transfers.....	4,254	13,882	17,070	19,689	3,140	3,294
Domestic shipments....	1,385	8,096	17,133	12,682	3,369	4,299
Subtotal.....	5,639	21,978	34,203	32,371	6,509	7,593
Outside-region shipments:						
Company transfers.....	0	0	1,262	964	0	240
Domestic shipments....	0	1,406	1,033	738	0	288
Subtotal.....	0	1,406	2,295	1,702	0	528
Total shipments.....	5,639	23,384	36,498	34,073	6,509	8,121
Alternative Southern-tier region:						
Within region shipments:						
Company transfers.....	4,254	13,882	17,070	19,689	3,140	3,294
Domestic shipments....	1,385	8,096	17,133	12,682	3,369	4,299
Subtotal.....	5,639	21,978	34,203	32,371	6,509	7,593
Outside-region shipments:						
Company transfers.....	0	0	1,262	964	0	240
Domestic shipments....	0	189	879	543	0	288
Subtotal.....	0	189	2,141	1,507	0	528
Total shipments.....	5,639	22,167	36,344	33,878	6,509	8,121

See footnotes at end of table.

Table 9--Continued
Cement clinker: Shipments of U.S. producers,[1] by regions, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	January-March-- 1990
	Unit value (per short ton)[2]					
Southern-tier region:						
Within region shipments:						
Company transfers.....	$34.03	$34.45	$34.55	$34.12	$32.71	$35.80
Domestic shipments....	24.30	20.60	22.45	18.46	20.93	23.11
Average.....	30.98	27.61	27.21	25.61	25.33	27.31
Outside-region shipments:						
Company transfers.....	0	0	20.03	20.08	0	20.00
Domestic shipments....	0	21.97	19.43	23.81	0	22.15
Average.....	0	21.97	19.76	21.54	0	21.12
Average, all.....	30.98	27.19	26.58	25.37	25.33	26.80
Alternative Southern-tier region:						
Within region shipments:						
Company transfers.....	34.03	34.45	34.55	34.12	32.71	35.80
Domestic shipments....	24.30	20.60	22.45	18.46	20.93	23.11
Average.....	30.98	27.61	27.21	25.61	25.33	27.31
Outside-region shipments:						
Company transfers.....	0	0	20.03	20.08	0	20.00
Domestic shipments....	0	21.00	19.47	21.71	0	22.15
Average.....	0	21.00	19.80	20.64	0	21.12
Average, all.....	30.98	27.54	26.62	25.34	25.33	26.80

[1] There were no export shipments reported by U.S. producers responding to Commission questionnaires.
[2] Computed using data from firms providing information on both quantity and value of shipments.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

U.S. producers' inventories

Producers' inventories of portland cement and clinker are presented in table 10.

Southern-tier.--Producers' inventories of portland cement, as a share of production, ranged from 5.1 to 5.9 percent for the period of investigation, while clinker inventories ranged from 7.1 to 10.7 percent. Of the producers holding double-digit shares in both categories, most were located in Texas.

Alternative Southern-tier.--Portland cement inventories held by producers ranged from 5.0 to 5.8 percent for 1986-March 1990. During the same period, clinker inventories ranged from 8.1 percent to 12.7 percent, with the former being achieved in 1989.

Table 10
Portland cement and cement clinker: U.S. producers' inventories, by regions, as of Dec. 31 of 1986-89, and as of Mar. 31 of 1989 and 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	End-of-period inventories (1,000 short tons)					
Southern-tier region:						
Portland cement	1,284	1,434	1,294	1,341	1,135	1,167
Cement clinker	2,157	2,432	1,895	1,751	2,316	1,790
Alternative Southern-tier region:						
Portland cement	950	1,055	997	1,044	860	914
Cement clinker	1,699	2,134	1,711	1,506	1,971	1,568
	Ratio to production (percent)[1]					
Southern-tier region:						
Portland cement	5.2	5.9	5.2	5.2	5.2	5.1
Cement clinker	9.6	10.7	8.1	7.1	10.2	7.8
Alternative Southern-tier region:						
Portland cement	5.0	5.8	5.4	5.3	5.1	5.2
Cement clinker	10.1	12.7	9.9	8.1	11.5	8.9

[1] Computed using data from firms providing information on both inventory and production. January-March ratios are based on annualized production data.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

U.S. producers' employment and wages

Most of the firms responding to the Commission's questionnaire were unable to separate workers producing clinker from those producing finished portland cement because most of their workers did both. Therefore, the most detailed employment statistics that had any meaning were those for workers producing portland cement and clinker (table 11). The vast majority of such workers in the Southern-tier region had union representation.

Southern-tier.--Overall, the number of production and related workers producing portland cement and clinker dropped by 19.0 percent from 1986 to 1989. Facilities in Texas, New Mexico, Arizona, and California accounted for the major portion of the decline in employment. Hours worked, wages, and total compensation dropped by approximately 14.0 percent during 1986-89, while hourly wages increased irregularly from $14.08 to $14.14 over the same period. Productivity for the region, measured in short tons per hour, increased over the period of investigation, while unit labor costs declined.

Alternative Southern-tier.--The number of production and related workers in this region registered a 20.8-percent drop from 1986 to 1989. Hours worked, wages paid, and total compensation declined by 15.3, 16.2, and 17.8 percent, respectively. Hourly wages showed a slight, albeit irregular, drop from $13.94 in 1986 to $13.79 in 1989. Productivity steadily increased as unit labor costs moved steadily downward.

In its questionnaire, the Commission requested U.S. producers to provide detailed information concerning reductions in the number of production and related workers producing portland cement and/or cement clinker during January 1986 through March 1990 if such reductions involved at least 5 percent of the workforce, or 50 workers. The reported reductions in force, for Southern-tier producers are shown in the following tabulation:

* * * * * * *

Table 11
Average number of production and related workers producing portland cement and cement clinker, hours worked,[1] wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs, by regions, 1986-89, January-March 1989, and January-March 1990[2]

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Number of production and related workers (PRWs)					
Southern-tier region	4,437	4,051	3,739	3,593	3,651	3,542
Alternative Southern-tier region	3,375	3,050	2,795	2,670	2,732	2,638
	Hours worked by PRWs (thousands)					
Southern-tier region	9,668	8,985	8,425	8,304	2,119	2,002
Alternative Southern-tier region	7,440	6,895	6,412	6,299	1,595	1,492
	Wages paid to PRWs (thousands of dollars)					
Southern-tier region	136,172	127,449	121,024	117,386	29,878	29,324
Alternative Southern-tier region	103,710	96,596	90,332	86,852	21,943	21,218
	Total compensation paid to PRWs (thousands of dollars)					
Southern-tier region	169,062	157,429	150,042	144,321	36,921	36,352
Alternative Southern-tier region	128,517	118,363	110,460	105,527	26,579	25,980
	Hourly wages paid to PRWs[3]					
Southern-tier region	$14.08	$14.18	$14.36	$14.14	$14.10	$14.65
Alternative Southern-tier region	13.94	14.01	14.09	13.79	13.76	14.22
	Productivity for portland cement (short tons per hour)[4]					
Southern-tier region	2.6	2.8	3.0	3.2	2.7	3.0
Alternative Southern-tier region	2.4	2.5	2.8	3.0	2.6	2.8

See footnotes at end of table.

Table 11--Continued
Average number of production and related workers producing portland cement and cement clinker, hours worked,[1] wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs, by regions, 1986-89, January-March 1989, and January-March 1990[2]

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Unit labor costs for portland cement (per short ton)[5]					
Southern-tier region.....	$6.63	$6.14	$5.70	$5.25	$6.32	$5.95
Alternative Southern-tier region.....	7.00	6.61	6.03	5.44	6.36	6.04

[1] Includes hours worked plus hours of paid leave time.
[2] Firms providing employment data accounted for 96 percent of reported total U.S. shipments (based on quantity) in 1989.
[3] Calculated using data from firms that provided information on both wages paid and hours worked.
[4] Calculated using data from firms that provided information on both hours worked and production.
[5] On the basis of total compensation paid. Calculated using data from firms that provided information on both total compensation paid and production.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Financial experience of U.S. producers

Forty plants of U.S. producers, accounting for 96 percent of reported active capacity for portland cement in the Southern-tier region in 1989, supplied income-and-loss data on their portland cement and cement clinker operations and on their overall establishment operations. Portland cement and clinker net sales accounted for an average of 88 percent of total net sales of overall establishment operations during the period covered by the investigation. Hence, only portland cement and cement clinker operations are presented in this section.

The key financial data, by plant and by firm, are presented in appendix E, together with a description of financial terms used in that section. Appendix E also contains a brief comparative analysis of rates of return, and some qualifications that should be taken into account regarding the cost of capital computation.

Southern-tier region.-- Net sales of portland cement and clinker declined by 7 percent from $1.25 billion in 1986 to $1.16 billion in 1988 (table 12). Most of this decline in net sales occurred in 1987. Such net sales increased by 3 percent to $1.19 billion in 1989, but were still 5 percent lower than the level of net sales in 1986.

The Southern-tier portland cement industry reported aggregate operating income throughout the period covered by the investigation. However, the aggregate operating income dropped from $105.6 million, or 8.5 percent of net sales, in 1986 to $64.9 million, or 5.6 percent of net sales, in 1988. Most of the decline in operating income occurred in 1988. Such income rose to $66.8 million in 1989, but the operating income margin remained at the 1988 level.

The Southern-tier region reported pretax net income margins of 0.6 percent in 1986 and 1.1 percent in 1987 and small pretax net loss margins of 1.5 percent in 1988 and 1.0 percent in 1989 because of shutdown expenses, increasing interest expenses, and high "one-time" charges by some plants during the period of investigation.

Five reporting plants shut down during the period of investigation. The Fort Worth, TX, and Dallas, TX, plants of Lafarge Corp. shut down in 1987 and 1989, respectively. *** in 1987. The Dallas plant reported *** in 1988 and *** in 1989. Lehigh closed one of its two kilns in February 1986 and completely shut down its Waco, TX, plant in September 1986, reporting *** expenses during each period from 1986 to 1989. Southdown closed its El Paso, TX, plant in May 1986, reporting ***, and closed its Amarillo, TX, plant in October 1987, reporting ***. Ideal Basic Industries, which merged with Holnam on March 8, 1990, incurred *** in 1988 and *** in 1989 for kilns at its Theodore, AL, plant which had been shut down for 4 years, and reported *** in 1986, *** the amount incurred in 1987. It reported a *** for a change in accounting method for *** in 1988. The *** reported by Tarmac America represent the *** from Lone Star in 1988.

Alamo constructed new finishing mills in late 1985 and shut down permanently its old finishing mills at the beginning of 1986. It reported ***, *** its 1985 ***, and *** its 1987 ***, in 1986. Florida Crushed Stone Co. started production of cement clinker in February 1987 by constructing a new cement plant, reporting about *** each year. BoxCrow constructed a new plant and started production of portland cement and cement clinker in June

Table 12
Income-and-loss experience of U.S. producers in the Southern-tier region on their operations producing portland cement and cement clinker, accounting years 1986-89

Item	1986	1987	1988	1989
	Value (1,000 dollars)			
Net sales	1,248,834	1,160,080	1,157,101	1,194,420
Cost of goods sold	1,048,857	972,417	1,002,271	1,030,705
Gross profit	199,977	187,663	154,830	163,715
Selling, general, and administrative expenses	94,369	92,114	89,960	96,897
Operating income	105,608	95,549	64,870	66,818
Startup or shutdown expenses	***	***	4,507	3,133
Interest expense	71,844	62,605	79,938	88,802
Other income or (expense), net	***	***	1,686	13,677
Net income or (loss) before income taxes	7,028	12,380	(17,889)	(11,440)
Depreciation and amortization included above	118,315	121,114	120,244	121,264
Cash flow[1]	125,343	133,494	102,355	109,824
	Share of net sales (percent)			
Cost of goods sold	84.0	83.8	86.6	86.3
Gross profit	16.0	16.2	13.4	13.7
Selling, general, and administrative expenses	7.6	7.9	7.8	8.1
Operating income	8.5	8.2	5.6	5.6
Net income or (loss) before income taxes	0.6	1.1	(1.5)	(1.0)
	Number of plants reporting			
Data	38	38	37	37
Operating losses	14	14	14	15
Net losses	17	18	18	23
Decreases from previous year in--				
Net sales	-	28	18	14
Operating income	-	21	21	21
Net income	-	19	21	21

[1] Cash flow is defined as net income or loss plus depreciation and amortization.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

1987. Its increase in 1988 *** reflects the *** of BoxCrow's *** in that year, the first full year the expense was reported. The Oro Grande plant of Gifford-Hill (Riverside) reported a *** for *** in 1986. The company *** to *** because the *** of the plant. Kaiser's Lucerne Valley, CA, plant reported over *** in 1987 and 1988 for *** when acquired by Hanson Industries. The Lucerne Valley plant reported about *** in 1988 and 1989, *** those in 1987, when acquired by Mitsubishi from Kaiser. The Clarkdale, AZ, plant (Phoenix), purchased by the Salt River Pima-Maricopa Indian Community from Gifford-Hill on May 4, 1987, reported *** of about *** in 1987 and about *** in 1988 and 1989, compared with *** in 1986. This plant reported a *** from a ***. The Brooksville, FL, plant reported *** of about *** in 1988 and 1989 compared with *** in 1987 because of ***, in 1988.

The breakdown of quantity and value of net sales into trade and company transfers of portland cement and cement clinker is presented in table 13. As a share of the total quantity or value of sales of cement and clinker combined, trade sales and transfers of clinker accounted for 2 percent or less in 1986 and 1987, and 5 percent or less in 1988 and 1989 for the Southern-tier region. Company transfers of cement averaged approximately 14 percent of total net sales in terms of quantity and value during 1986-89.

Income-and-loss data on a "per-short-ton" basis are shown in table 14. On that basis, average net sales of portland cement and clinker combined fell from $49.19 in 1986 to $43.58 in 1988, or by 11.4 percent, whereas average cost of goods sold declined from $41.31 to $37.75, or by 8.6 percent, and average selling, general, and administrative (SG&A) expenses dipped from $3.72 to $3.39, or by 8.9 percent. The greater decline in average unit net sales than average unit cost of goods sold and SG&A expenses led to the drop in operating profit. In 1989, average unit net sales rose by $0.61, whereas cost of goods sold and SG&A expenses increased by $0.39 and $0.20, respectively, resulting in the increase of $0.03 per ton in operating income. These changes in per-unit revenue and costs and their relationship with volume changes (net sales quantities) are reflected in variance analysis below.

An analysis of the decline or increase in gross profit and operating income on sales of portland cement and cement clinker combined between 1986 and 1989 and during each of the intervening 2-year periods is presented in table 15. The data presented in this table represent an analysis of the changes in gross profit and operating income based on a variance analysis. The variance analysis indicates the relative impact of changes in price, volume, and cost on profit levels between two periods. Such analysis is a reasonable analytical tool in this case because portland cement is essentially a fungible product and there is no significant impact due to changing product mix.

Price, cost, and expense variances were determined by calculating for each respective period (annual or 1986-89) the change in average unit value for price, cost, and expense and multiplying this unit change by the volume of units sold in the year the period ends. Volume variances for net sales, cost of goods sold, and SG&A expenses were computed by multiplying the change in volume between applicable periods (annual or 1986-89) by the average unit value in the year the period starts.

Table 13
Portland cement and cement clinker: U.S. producers' quantity and value of net sales in the Southern-tier region, by types of sales, accounting years 1986-89

Item	1986	1987	1988	1989
	Quantity (1,000 short tons)			
Net sales:				
Trade:				
Cement	21,637	21,373	21,637	21,798
Clinker	142	315	815	739
Transfer:				
Cement	3,525	3,193	3,585	3,975
Clinker	83	152	514	515
Total	25,387	25,033	26,551	27,027
	Value (1,000 dollars)			
Net sales:				
Trade:				
Cement	1,082,694	1,012,656	973,793	992,176
Clinker	4,791	7,325	18,122	15,779
Transfer:				
Cement	158,414	135,141	149,543	171,181
Clinker	2,935	4,958	15,643	15,284
Total	1,248,834	1,160,080	1,157,101	1,194,420

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 14
Income-and-loss experience (on a per-short-ton basis) of U.S. producers in the Southern-tier region on their operations producing portland cement and cement clinker, accounting years 1986-89

Item	(Per short ton[1]) 1986	1987	1988	1989
Net sales:				
Trade:				
Cement	$50.04	$47.38	$45.01	$45.52
Clinker	33.74	23.25	22.24	21.35
Transfer:				
Cement	44.94	42.32	41.71	43.06
Clinker	35.36	32.62	30.43	29.68
Total	49.19	46.34	43.58	44.19
Cost of goods sold	41.31	38.85	37.75	38.14
Gross profit	7.88	7.50	5.83	6.06
Selling, general, and administrative expenses	3.72	3.68	3.39	3.59
Operating income	4.16	3.82	2.44	2.47
Startup or shutdown expenses	***	***	0.17	0.12
Interest expense	2.83	2.50	3.01	3.29
Other income or (expense), net	***	***	0.06	0.51
Net income or (loss) before income taxes	0.28	0.49	(0.67)	(0.42)
Depreciation and amortization included above	4.66	4.84	4.53	4.49
Cash flow[2]	4.94	5.33	3.86	4.06

[1] Because of rounding, numbers may not add to values shown.
[2] Cash flow is defined as net income or loss plus depreciation and amortization.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 15
Portland cement and cement clinker: Variances[1] in gross profit and operating income due to changes in price, volume, costs, and expenses in the Southern-tier region during 1986-89, 1986-87, 1987-88, and 1988-89

(In 1,000 dollars)

Item	1986-89	1986-87	1987-88	1988-89
Net sales:				
Price variance	(135,089)	(71,340)	(73,326)	16,575
Volume variance	80,675	(17,414)	70,347	20,744
Total net sales variance[2]	(54,414)	(88,754)	(2,979)	37,319
Cost of goods sold:				
Cost variance	85,908	61,815	29,113	(10,466)
Volume variance	(67,756)	14,625	(58,967)	(17,968)
Total cost of goods sold variance[2]	18,152	76,440	(29,854)	(28,434)
Gross profit variance[2]	(36,262)	(12,314)	(32,833)	8,885
SG&A expenses:				
Expense variance	3,568	939	7,740	(5,324)
Volume variance	(6,096)	1,316	(5,586)	(1,613)
Total SG&A variance[2]	(2,528)	2,255	2,154	(6,937)
Operating income variance[2]	(38,790)	(10,059)	(30,679)	1,948

[1] Unfavorable variances are shown in parentheses; all others are favorable.
[2] Comparable to changes in net sales, cost of sales, gross profit, SG&A expenses, and operating income as presented in table 12.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The total decline of $38.8 million in operating income between 1986 and 1989 resulted from a $54.4 million decline in net sales revenue and an increase of $2.5 million in SG&A expenses, which was offset by a decrease of $18.2 million in cost of goods sold. The $54.4 million net sales decline is a combination of $135.1 million attributable to the drop in sales price that was offset by $80.7 million due to the increase in sales volume. The net saving in costs of $18.2 million is a combination of $85.9 million attributable to the decline in the unit cost of production offset by $67.7 million due to the increase in sales volume.

Between 1986 and 1987, the decrease in operating income was mainly due to unfavorable price and volume variances in net sales. Between 1987 and 1988, the drop in operating income was mainly due to high unfavorable price variance, indicating the relatively lower decline in unit cost compared to unit sales revenue, even with higher volumes. Between 1988 and 1989, the increase in operating income was mainly due to relatively higher favorable price and volume variance in net sales than unfavorable cost variances.

Alternative Southern-tier region.--Thirty-two plants of U.S. producers, accounting for 95 percent of reported active capacity for portland cement in the Alternative Southern-tier region in 1989, supplied income-and-loss data on their portland cement and cement clinker operations and on their overall establishment operations. Portland cement and clinker net sales accounted for an average of 88 percent of total net sales of overall establishment operations during the period covered by the investigation. Income-and-loss data are presented in table 16.

The trend in net sales and operating income of the Alternative Southern-tier region is generally similar to that of the Southern-tier region. Net sales declined by 11 percent from 1986 to 1988 and then rose by 4 percent in 1989. The operating income margin dropped from 7.0 percent in 1986 to 2.4 percent in 1988 and then increased to 3.1 percent in 1989.

The breakdown of quantity and value of net sales into trade and company transfers of portland cement and cement clinker is presented in table 17. As a share of total quantities of cement and clinker combined, trade sales and transfers of clinker accounted for 2.5 percent or less in 1986 and 1987, and 6.3 percent or less in 1988 and 1989 for the Alternative Southern-tier region. These percentages are lower as a share of the total value of net sales. Company transfers of cement accounted for an average of 16 percent of total net sales in terms of both quantity and value.

Income-and-loss data on a per-short-ton basis are shown in table 18. Average unit net sales, costs, and expenses in the Alternative Southern-tier region followed the same trend as those in the Southern-tier region except in 1989, when the average unit cost of goods sold declined by $0.27, resulting in an increase of $0.28 in the average unit operating income.

Variance analysis showing the effects of prices and volume on the U.S. producers' net sales of portland cement and cement clinker, costs and volume on their cost of goods sold, and costs and volume on their SG&A expenses is presented in table 19. These data show a similar impact of price, volume, and cost changes on profit in the Alternative Southern-tier region during each period reported as occurred in the Southern-tier region.

Table 16
Income-and-loss experience of U.S. producers in the Alternative Southern-tier region on their operations producing portland cement and cement clinker, accounting years 1986-89

Item	1986	1987	1988	1989
	Value (1,000 dollars)			
Net sales	960,364	873,333	854,242	891,234
Cost of goods sold	824,361	748,855	768,243	791,114
Gross profit	136,003	124,478	85,999	100,120
Selling, general, and administrative expenses	68,612	66,617	65,226	72,880
Operating income	67,391	57,861	20,773	27,240
Startup or shutdown expenses	***	***	4,507	3,133
Interest expense	57,706	52,801	70,843	81,156
Other income or (expense), net	***	***	10,405	11,529
Net income or (loss) before income taxes	(16,998)	(7,681)	(44,172)	(45,520)
Depreciation and amortization included above	86,416	89,741	93,702	95,089
Cash flow[1]	69,418	82,060	49,530	49,569
	Share of net sales (percent)			
Cost of goods sold	85.8	85.7	89.9	88.8
Gross profit	14.2	14.3	10.1	11.2
Selling, general, and administrative expenses	7.1	7.6	7.6	8.2
Operating income	7.0	6.6	2.4	3.1
Net income or (loss) before income taxes	(1.8)	(0.9)	(5.2)	(5.1)
	Number of plants reporting			
Data	30	30	29	29
Operating losses	13	12	13	13
Net losses	16	16	17	18
Decreases from previous year in--				
Net sales	-	23	16	9
Operating income	-	15	18	16
Net income	-	15	19	16

[1] Cash flow is defined as net income or loss plus depreciation and amortization.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 17
Portland cement and cement clinker: U.S. producers' quantity and value of net sales in the Alternative Southern-tier region, by types of sales, accounting years 1986-89

Item	1986	1987	1988	1989
	Quantity (1,000 short tons)			
Net sales:				
Trade:				
Cement	16,347	15,654	15,602	16,006
Clinker	142	315	752	739
Transfer:				
Cement	3,158	2,918	3,250	3,605
Clinker	83	152	514	515
Total	19,730	19,039	20,118	20,865
	Value (1,000 dollars)			
Net sales:				
Trade:				
Cement	810,157	737,183	685,303	703,799
Clinker	4,791	7,325	16,751	15,779
Transfer:				
Cement	142,481	123,867	136,545	156,372
Clinker	2,935	4,958	15,643	15,284
Total	960,364	873,333	854,242	891,234

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 18
Income-and-loss experience (on a per-short-ton basis) of U.S. producers in the Alternative Southern-tier region on their operations producing portland cement and cement clinker, accounting years 1986-89

Item	(Per short ton[1]) 1986	1987	1988	1989
Net sales:				
Trade:				
Cement	$49.56	$47.09	$43.92	$43.97
Clinker	33.74	23.25	22.28	21.35
Transfer:				
Cement	45.12	42.45	42.01	43.38
Clinker	35.36	32.62	30.43	29.68
Total	48.68	45.87	42.46	42.71
Cost of goods sold	41.78	39.33	38.19	37.92
Gross profit	6.89	6.54	4.27	4.80
Selling, general, and administrative expenses	3.48	3.50	3.24	3.49
Operating income	3.42	3.04	1.03	1.31
Startup or shutdown expenses	***	***	0.22	0.15
Interest expense	2.92	2.77	3.52	3.89
Other income or (expense), net	***	***	0.52	0.55
Net income before income taxes	(0.86)	(0.40)	(2.20)	(2.18)
Depreciation and amortization zation included above	4.38	4.71	4.66	4.56
Cash flow[2]	3.52	4.31	2.46	2.38

[1] Because of rounding, numbers may not add to values shown.
[2] Cash flow is defined as net income or loss plus depreciation and amortization.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 19
Portland cement and cement clinker: Variances[1] in gross profit and operating income due to changes in price, volume, costs, and expenses in the Alternative Southern-tier region during 1986-89, 1986-87, 1987-88, and 1988-89

(In 1,000 dollars)

Item	1986-89	1986-87	1987-88	1988-89
Net sales:				
Price variance	(124,376)	(53,396)	(68,586)	5,273
Volume variance	55,246	(33,635)	49,495	31,719
Total net sales variance[2]	(69,130)	(87,031)	(19,091)	36,992
Cost of goods sold:				
Cost variance	80,670	46,635	23,052	5,655
Volume variance	(47,423)	28,871	(42,440)	(28,526)
Total cost of goods sold variance[2]	33,247	75,506	(19,388)	(22,871)
Gross profit variance[2]	(35,883)	(11,525)	(38,479)	14,121
SG&A expenses:				
Expense variance	(321)	(408)	5,166	(5,232)
Volume variance	(3,947)	2,403	(3,775)	(2,422)
Total SG&A variance[2]	(4,268)	1,995	1,391	(7,654)
Operating income variance[2]	(40,151)	(9,530)	(37,088)	6,467

[1] Unfavorable variances are shown in parentheses; all others are favorable.
[2] Comparable to changes in net sales, cost of sales, gross profit, SG&A expenses, and operating income as presented in table 16.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Investment in productive facilities.--The value of property, plant, and equipment and total assets of the reporting plants in the Southern-tier region and the Alternative Southern-tier region are presented in table 20 and table 21, respectively. The return on book value of fixed assets and the return on total assets are also shown in those tables. Operating and net returns on the book value of fixed assets and on total assets followed generally the same trend as did the ratios of operating and net income to net sales during the reporting periods.

In 1987, the increase in the value of fixed assets reflects the investment made by ***.

Capital expenditures.--The capital expenditures incurred by the reporting plants are shown in the following tabulation (in thousands of dollars):

Item	1986	1987	1988	1989
Portland cement and cement clinker:				
Southern-tier region.....	94,403	284,982	63,419	79,601
Alternative Southern-tier region.....	76,464	272,342	48,215	57,416

The increase in capital expenditures in 1987 represents ***.

Research and development expenses.--The responding plants' research and development expenses during the periods covered by the investigation are presented in the following tabulation (in thousands of dollars):

Item	1986	1987	1988	1989
Portland cement and cement clinker:				
Southern-tier region.....	801	1,412	822	788
Alternative Southern-tier region.....	501	580	503	467

Impact of imports on capital and investment.--The Commission requested each plant to describe any actual and/or potential negative effects of imports of portland cement and/or cement clinker from Mexico on existing development and production efforts, growth, investment, and ability to raise capital. Their responses are shown in appendix F.

Table 20
Portland cement and cement clinker: Value of property, plant, and equipment of U.S. producers in the Southern-tier region, accounting years 1986-89

Item	1986	1987	1988	1989
	Value (1,000 dollars)			
Fixed assets:				
Original cost	2,167,199	2,479,883	2,546,440	2,611,525
Book value	1,432,853	1,689,328	1,755,050	1,734,251
Total assets[1]	1,906,794	2,151,195	2,188,331	2,188,501
	Return on book value of fixed assets (percent)[2]			
Operating return[3]	7.1	5.5	3.3	3.2
Net return[4]	0.3	0.6	(1.3)	(1.3)
	Return on total assets (percent)[2]			
Operating return[3]	5.4	4.3	2.6	2.5
Net return[4]	0.2	0.5	(1.1)	(1.0)

[1] Defined as book value of fixed assets plus current and noncurrent assets. Total assets are derived by apportioning total establishment assets, by firm, on the basis of the ratios of the respective book values of fixed assets.

[2] Computed using data from only those firms supplying both asset and income-and-loss information, and as such, may not be derivable from data presented.

[3] Defined as operating income or loss divided by asset value.

[4] Defined as net income or loss divided by asset value.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 21
Portland cement and cement clinker: Value of property, plant, and equipment of U.S. producers in the Alternative Southern-tier region, accounting years 1986-89

Item	1986	1987	1988	1989
	Value (1,000 dollars)			
Fixed assets:				
Original cost	1,706,218	2,001,793	2,063,389	2,110,946
Book value	1,114,164	1,370,778	1,451,190	1,433,788
Total assets[1]	1,459,426	1,687,455	1,742,514	1,746,537
	Return on book value of fixed assets (percent)[2]			
Operating return[3]	6.4	4.6	1.4	1.9
Net return[4]	(1.2)	(0.2)	(2.9)	(3.1)
	Return on total assets (percent)[2]			
Operating return[3]	4.9	3.7	1.2	1.6
Net return[4]	(0.9)	(0.2)	(2.4)	(2.6)

[1] Defined as book value of fixed assets plus current and noncurrent assets. Total assets are derived by apportioning total establishment assets, by firm, on the basis of the ratios of the respective book values of fixed assets.

[2] Computed using data from only those firms supplying both asset and income-and-loss information, and as such, may not be derivable from data presented.

[3] Defined as operating income or loss divided by asset value.

[4] Defined as net income or loss divided by asset value.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Consideration of the Question of Threat of Material Injury

Section 771(7)(F)(i) of the Tariff Act of 1930 (19 U.S.C. § 1677(7)(F)(i)) provides that--

> In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of any merchandise, the Commission shall consider, among other relevant factors [59]--
>
> (I) If a subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the subsidy is an export subsidy inconsistent with the Agreement),
>
> (II) any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States,
>
> (III) any rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level,
>
> (IV) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,
>
> (V) any substantial increase in inventories of the merchandise in the United States,
>
> (VI) the presence of underutilized capacity for producing the merchandise in the exporting country,
>
> (VII) any other demonstrable adverse trends that indicate the probability that the importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury,
>
> (VIII) the potential for product-shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigation(s) under section 701 or 731 or to final orders under section 736, are also used to produce the merchandise under investigation,

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[59] Section 771(7)(F)(ii) of the act (19 U.S.C. § 1677(7)(F)(ii)) provides that "Any determination by the Commission under this title that an industry in the United States is threatened with material injury shall be made on the basis of evidence that the threat of material injury is real and that actual injury is imminent. Such a determination may not be made on the basis of mere conjecture or supposition."

> (IX) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both), and
>
> (X) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the like product.[60]

Subsidies (item (I)) and agricultural products (item (IX)) are not at issue in this investigation; information on the volume, U.S. market penetration, and pricing of imports of the subject merchandise (items (III) and (IV) above) is presented in the section entitled "Consideration of the causal relationship between imports of the subject merchandise and the alleged material injury;" and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts (item (X)) is presented in the section entitled "Consideration of material injury to an industry in the United States." Available information on U.S. inventories of the subject products (item (V)); foreign producers' operations, including the potential for "product-shifting" (items (II), (VI), and (VIII) above); any other threat indicators, if applicable (item (VII) above); and any dumping in third-country markets, follows.

The Mexican industry[61]

The Mexican cement industry consists of nine corporate groups operating a total of 26 cement plants. It is estimated that four of these corporate groups account for 90 percent of the Mexican market. Twenty of the plants are located south of Monterey and account for an estimated 75 percent of Mexico's total production. Mexico's cement producers are located predominantly in four major areas of consumption. The Federal District (Mexico City) and the States of Veracruz, Jalisco, and Nuevo Leon together accounted for about 36 percent of total domestic consumption in 1989. In addition to production plants,

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

[61] Available data on the Japanese industry is presented at pp. A-56-62 of United States International Trade Commission, Gray Portland Cement and Cement Clinker from Japan (Investigation No. 731-TA-461 (Preliminary)), USITC Publication 2297, July 1990.

there are 31 distribution terminals located throughout the country to facilitate shipping and storage.

Plants are located throughout Mexico, usually near deposits of limestone and clay, which are essential raw materials for the production of cement.[62] Cement production totaled approximately 25.9 million short tons in 1989.[63] Four companies: Cemex, Tolteca, Apasco, and Cementos de Chihuahua S.A. (CDC) accounted for all, or virtually all, exports of portland cement and cement clinker to the United States during the period of investigation. Virtually all exports from Mexico go to the United States, with a very limited amount going to countries in the Caribbean.

Of the four exporting companies, Cemex, Mexico's largest producer, is the leading exporter. Cemex owns or has interests in 17 cement plants, with a capacity of approximately 26.3 million short tons, or slightly more than 71 percent of Mexican capacity, in 1989. This figure includes CDC's and Cemex's recently purchased Tolteca capacity. CDC and Tolteca are discussed separately later in this section.

Cemex exports to the United States from facilities located near the Gulf of Mexico ***, in northern Mexico ***, and on the west coast of Mexico ***. Gulf coast plant exports go by water to the United States, whereas exports from the plants in the other two locales generally go by rail or a rail/ship combination to Texas, New Mexico, Arizona, and California. Presently, Cemex is completing a new facility (El Yaqui) located in Hermosillo, Sonora, in northern Mexico that will add *** short tons of capacity. According to Cemex's submission in response to the Commission's request for foreign producer information, the plant is scheduled for startup in ***, with full capacity expected to be achieved 6 to 12 months thereafter. Additionally, Cemex is planning expansions of *** short tons at its facilities located in Ensenada, Baja California Norte, and Merida, Yucatan. The Ensenada expansion is slated for completion in ***, with the Merida expansion due to be finished in ***. Of these expansions, Cemex states that ***. Cemex also noted in its submission that it plans to shut down its Tamuin facility *** this summer.[64]

Throughout the course of this investigation, two areas of dispute between the parties have been over historic Mexican capacity figures (which will be discussed later) and the size of and intended markets for new capacity. Essentially, petitioners contend that since the new capacity will be coming on stream in northern Mexico, it is destined for export to the United States, particularly the Southern-tier. In support of this contention, petitioners ask the Commission to contrast the questionnaire responses of Cemex "to Cemex's statements before this antidumping investigation was initiated."[65] According to petitioner, such a contrast would show that Cemex's 1987 Annual Report spoke of adding capacity, particularly at Hermosillo, "to supply a larger volume of cement to the United States and to

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[62] Foreign Investment Barriers or Other Restrictions That Prevent Foreign Capital From Claiming the Benefits of Foreign Government Programs, USITC Publication 2212, pp. 2-7.

[63] Camara Nacional de Cemento (Mexican Cement Chamber) figures as supplied in Department of State cablegram. Figures have been converted from metric to short tons.

[64] In response to questions by Commission staff as to the permanence of the Tamuin closure (Transcript, p. 119), ***.

[65] Petitioners' prehearing brief, p. 128.

the Mexican States of Baja California North and South, Sonora and Sinola, as well as free up more cement from Cemex's Ensenada plant for export,"[66] whereas Cemex's questionnaire response in this investigation "claims that the new capacity of its new Cementos del Yaqui plant at Hermosillo is directed 100 percent at the Mexican market."[67]

On the other hand, counsel for Cemex counters that "In the face of rapidly increasing Mexican demand, petitioners' concerns about new capacity coming on line in Mexico are completely unwarranted."[68] Counsel further states Cemex is reorienting its shipping patterns to enable it to meet the increased demand in, and to more efficiently serve, the home market. Additionally, counsel states, "This reorientation has also been fueled by the rationalization of facilities resulting from the acquisition of Tolteca and the construction underway at Hermosillo. Cemex is reorganizing its cement distribution by relying increasingly on the plants with the lowest transportation costs to the U.S. to serve that market, and by using the plants in central Mexico--which previously exported to the U.S.--to meet growing home market demand. In fact, Cemex will no longer be able to export from the Torreon plant and will reduce exports from the Zapotiltic plant because of the surge in demand in the areas around these plants. As a consequence, the enlarged Tolteca Hermosillo plant will serve many of the U.S. customers previously supplied by Zapotiltic and Torreon, so that these plants can ship to the areas of greatest Mexican demand. The El Yaqui plant, together with the Tolteca Hermosillo facility, will be used to meet the rapidly rising home market demand in western Mexico and will sell in areas in Mexico ***.[69] ***.[70]

As mentioned earlier in this report, Cemex owns Southwestern Sunbelt, a U.S. importer with import terminals located in Texas, New Mexico, Arizona, and California. This is but a portion of Cemex's operations in the United States.[71] The parties to the investigation are in dispute with regard to the annual throughput capacity of Cemex's terminals located in southern California, Arizona, New Mexico, Texas, and Florida. Petitioners contend that these terminals have annual throughput capacity of nearly 7 million tons,[72] whereas Cemex claims that actual annual capacity is slightly over ***.[73] As

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[66] Ibid.

[67] Ibid.

[68] Prehearing brief on behalf of Cemex, S.A., and the Cement Free Trade Association, p. 119.

[69] Ibid, pp. 120-121.

[70] Ibid, ***.

[71] In response to the Commission's request for information on foreign producers, counsel for Cemex provided the following description of Cemex's operations in the United States: "Sunbelt Corporation, incorporated in the State of Delaware, operates as a holding company for the U.S. operations of the CEMEX Group. The Sunbelt Group produces and distributes ready-mix concrete from approximately 40 ready-mix facilities to California, Texas and Arizona, owns and operates nine aggregate plants, produces and distributes concrete block primarily to the southwest, west and gulf coast regions of the United States (the Sunbelt region) and owns and operates cement storage and distribution facilities and imports and distributes cement throughout the Sunbelt Region."

[72] Testimony of Fred D. Ullman, Ullman and Associates, for the petitioners, Transcript, p. 46.

[73] Posthearing brief on behalf of Cemex, S.A., and the Cement Free Trade Association, Exhibit 22.

noted earlier in this report, Cemex generally owns or controls most of the import marketing and/or concrete operations in areas that receive its exports, with Florida being the exception in the Southern tier. In May 1990, Cemex purchased Pacific Coast Cement Corp. with an import terminal in Long Beach, CA.

Apasco, with a capacity of nearly 4.8 million short tons according to Mexican Cement Chamber figures, exports to the United States from the Port of Veracruz and has two plants located in the Gulf coast area. During the period of investigation, the *** of Apasco's exports of portland cement and clinker went to Florida, in particular to the Tampa area. Apasco is presently constructing a new facility in Coahuila State in northern Mexico with an estimated capacity of 1.1 million short tons with an expected completion date in the second half of 1991. Apasco indicates that ***.[74] Apasco is 49-percent owned by Holderbank of Switzerland, which is also the parent of Ideal, a U.S. producer with plants throughout the United States, including Birmingham, AL; Theodore, AL; and Tijeras, NM.

Tolteca, which was purchased by Cemex in 1989, operates plants with a capacity of more than 6.6 million short tons. Tolteca has exported to the United States throughout the period of investigation, primarily to Texas, New Mexico, Arizona, and California. Tolteca's plants are located in the Mexico City area and along the west coast of Mexico. Its exports to Texas, New Mexico, and Arizona generally travel by rail from its Hermosillo facility, with its shipments to California going by a rail and ship combination. Tolteca is presently increasing its Hermosillo capacity of 1.3 million short tons by *** short tons. The expansion should be completed ***. Tolteca states that this capacity will be ***.

CDC, the remaining exporter, ships primarily by rail; most of its shipments go into the Texas market. CDC's parent, Control Administrativo

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[74] In its prehearing brief counsel for Apasco stated, "The plant is intended solely to meet anticipated domestic demand in the Monterey area, the most rapidly growing area in Mexico. Since the plant is about 150 miles from the Texas border, its location is, in light of transportation costs and availability, not conducive to developing an export market in the U.S. Further, even if overland transportation into Texas were more economical, the depressed conditions in that market do not permit recovery of even relatively low transportation costs." Prehearing brief on behalf of Apasco, S.A. de C.V., pp. 36-37.

On the other hand, petitioners state "the new Apasco plant, which will be situated on a rail line to Laredo, Texas, will be located in the same state as Cemex's Torreon plant, which has a capacity of 1.6 million metric tons, and only about 30 miles from Cemex's 2.3 million ton Monterey plant, which is located in the neighboring state of Nuevo Leon. In 1987, Nuevo Leon and Coahuila had combined consumption of 1.5 million metric tons. Even if domestic consumption in these states increased from 1987 to 1989 at twice the national rate, 1989 consumption in these states would only have been 1.63 million metric tons. Yet, by ***, these two states will have a combined capacity of approximately *** metric tons. Clearly, if Apasco does not export from the new Saltillo plant, then Cemex will be required to export additional cement from its Torreon plant (which is situated on a rail line to El Paso, Albuquerque, and Phoenix) and from its Monterey plant (which is situated on a rail line to Laredo and on a highway to McAllen)." Petitioners' prehearing brief, pp. 129-130.

Mexicano S.A. de C.V. (CAMSA), also owns Mexcement, Inc., a U.S. importer located in El Paso, TX. Cemex is a minority (49 percent) participant in CDC's operations.

Table 22 provides portland cement capacity, production, and capacity utilization figures as well as home-market shipments and export shipments for all Mexican producers (regardless of whether they export), and apparent Mexican consumption. These figures are from the Mexican Cement Chamber (CANACEM) and the Mexican Government's Commerce and Industrial Promotion Secretariat (SECOFI) as reported in Department of State cablegrams responding to the Commission's requests for information on the foreign industry.[75]

The capacity, production, and shipment numbers for 1986 through 1988 were provided from CANACEM figures while those for 1989 were provided to State by SECOFI. SECOFI was only able to provide production and capacity utilization figures for 1989. Hence, the 1989 capacity reflected in table 22 is a derived figure. That figure indicates a drop in capacity of some 6 million short tons from 1988 to 1989. In both years, the number of active plants was reported to be 29. Staff queried both petitioners and respondents as to whether such a change in capacity had, indeed, occurred.[76]

First of all, both agreed they did not believe there had been a 6-million-short-ton drop in capacity.[77] Additionally, they agreed that there were 26, rather than 29 plants producing portland cement in 1989.[78] The three plants that were closed had a collective capacity of approximately 1.3 million short tons according to CANACEM figures. At the public hearing, Mr. Jose Trevio Salinas, Director of International Operations, Cemex, S.A., expressed the belief that rather than the 1989 figures being the problem, the CANACEM figures for the earlier years may have been high due to plant closings not taken into account and also due to the fact they were "the theoretical capacity of the plants assuming that the kilns were going to be running at 360 days efficiency capacity. The actual capacity in Mexico now is calculated with 325 days, as you do it here in the States and in most other countries.[79] Basically, that accounts also for the low utilization rates we have in previous years. We were not comparing apples with apples."[80]

Petitioners, as noted earlier, agreed with respondents as to the closure of three plants thereby reducing capacity by 1.3 million short tons, but made no comment with respect to any problems with earlier CANACEM figures. In the

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[75] The cablegrams suggest that the capacity utilization figures should be viewed with some caution "because some Mexican cement capacity cannot be used even if demand for cement were greater. For example, the Cementos Anhuac plant in Mexico City has the largest capacity of any plant in Mexico, some 2.5 million (metric) tons per year. This plant is in a Catch 22 situation because it is unable to purchase natural gas from Pemex, the Government-owned oil company, and must use fuel oil, which increases the pollution the plant produces, so Government regulations force management to reduce production to cutback pollution."

[76] Transcript, pp. 108-111 and pp. 198-204.

[77] Transcript, pp. 111 and 204.

[78] Transcript, pp. 109 and 204.

[79] Such an approach would yield a capacity figure approximately 90 percent of the theoretical figure based on 360 days operation.

[80] Transcript, p. 201.

Table 22
Portland cement: Mexican capacity, production, capacity utilization, total shipments, export shipments, and apparent consumption, 1986-89

(1,000 short tons)

Item	1986	1987	1988	1989
Capacity	36,290	36,245	36,245	30,127
Production	21,771	24,633	24,816	25,909
Capacity utilization (percent)	60.0	68.0	68.5	86.0
Shipments:				
Total sales	21,867	24,476	24,789	25,926
Exports[1]	3,347	4,059	4,865	4,652
Apparent consumption[2]	18,520	20,417	19,924	21,274

[1] Does not include exports of cement clinker. Cement clinker exports for 1986 and 1987 were 991,000 short tons and 957,000 short tons, respectively. 1988 and 1989 figures were not available.
[2] There were no imports of portland cement (or cement clinker) in 1986, 1987, 1988, or 1989.

Source: Mexican Cement Chamber and SECOFI as reported in U.S. Department of State cablegram.

petitioners' prehearing brief, counsel did make the following comment with respect to CANACEM figures and the lack thereof in 1989:

> "In the 1986 Cement Case, CANACEM explained in its post-conference brief that it is an organization with official legal status and that '[a]ll Mexican producers and exporters of portland hydraulic cement duly established and constituted as corporations under the laws of Mexico are required by law to be members of the Mexican Cement Chamber.' CANACEM has, in the past published a yearly report which provided statistical information on, inter alia, cement capacity, production, and consumption in Mexico. The CANACEM figures discussed above are from the 1987 CANACEM Yearbook, which was published in 1988 (Exhibit 39). Since the filing of this petition in September 1989, CANACEM has not published either the 1988 or the 1989 Yearbooks. The only inference to be drawn from this fact is that publication of the yearbook--an official industry report published annually by CANACEM for many years--was squelched by Cemex because the yearbook would contain information harmful to the Mexican industry's position in this investigation."[81]

Subsequent to the public hearing, staff asked that petitioners and counsel for Cemex provide a listing of the plants they believed to be operating in 1989 as well as what they believed to be the capacity of each plant facility. Petitioners, using a Cemex offering circular of October 5, 1989 for Cemex and Tolteca capacity and 1987 CANACEM Yearbook figures for the other Mexican producers, arrived at a 1989 capacity of 36.0 million short tons.[82] On the other hand, Cemex's evaluation of Mexican cement capacity in

[81] Petitioners' prehearing brief, p. 110.
[82] ***.

the same plants for 1989 showed a capacity of 30.3 million short tons. More than two-thirds of the difference between the figures arises from differences in the combined Cemex-Tolteca capacities.[83]

Insofar as consumption is concerned, table 22 shows that consumption in Mexico increased 6.7 percent from 1988 to 1989. Should growth continue at that pace in 1990, Mexican consumption would stand at nearly 22.7 million short tons.

Not surprisingly, the parties to the investigation have divergent views as to the future growth of the Mexican market. Counsel for Cemex, in its prehearing submission, cites a forecast prepared by the Center for Econometric Research on Mexico (CIEMEX)[84] as evidence that a growing Mexican economy will lead to increased domestic cement consumption in the years ahead. For 1990, CIEMEX forecasts a 10.3-percent growth in cement consumption, followed by a 12.4-percent increase in 1991. Using table 22 consumption figures, this would yield domestic sales of nearly 23.5 million short tons in 1990 and 26.4 million short tons in 1991.

The CIEMEX growth projections would be reminiscent of the growth experienced from 1978-82, during Mexico's oil boom, when cement consumption jumped nearly 47 percent, or more than 11 percent per annum.[85] Petitioners counter that growth forecasts of this nature are "obviously overly optimistic."[86] In support of this contention, petitioners cite to a report and forecast prepared for them by DRI/McGraw-Hill (DRI)[87] as evidence that increased consumption in Mexico in the early 1990s will not absorb "existing excess capacity in Mexico."[88] DRI projects domestic consumption will increase by 3.7 and 4.4 percent, respectively, for 1990 and 1991. Applying figures from table 22 to this scenario, Mexican consumption for 1990 would be nearly 22.1 million short tons and slightly over 23.0 million short tons in 1991.

Counsel for the four Mexican producers provided information with respect to their clients' operations in Mexico producing portland cement and cement clinker. The data are presented in table 23. As indicated earlier, these four producers account for all, or virtually all, exports to the United States.[89]

Mexican exports of portland cement to the Southern-tier increased by 22 percent from 1986 to 1989. In 1989, Florida was the leading U.S. market for Mexican exports, followed by Texas, California (primarily southern California), and Arizona. Cement clinker exports to the Southern-tier dropped irregularly, by 68 percent, from 1986 to 1989. Most of this decline was due to Ideal's resumption of clinker production at its Theodore, AL, plant, and

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[83] Counsel for Cemex advises that the 1989 figures for Cemex-Tolteca reflect the "effective" capacity figures submitted by Cemex-Tolteca for use in table 23.

[84] CIEMEX has a joint venture relationship with Wharton Econometric Forecasting Associates (WEFA). Prehearing brief on behalf of Cemex, S.A., and Cement Free Trade Association, Exhibit 104.

[85] Based on figures contained in Department of State cablegram of June 15, 1990.

[86] Petitioners' prehearing brief, p. 141.

[87] Petitioners' prehearing brief, Exhibit 59.

[88] Petitioners' prehearing brief, p. 142.

[89] ***.

Table 23
Portland cement and cement clinker: Mexican capacity, production, capacity utilization, home market shipments, export shipments to the United States, export shipments to third countries, and inventories, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
Portland cement:						
	*	*	*	*	*	*	*
Cement clinker:						
	*	*	*	*	*	*	*

Source: Compiled from data submitted in response to requests from counsel representing Cemex, Apasco, Tolteca, and CDC.

the attendant drop in the need for imported clinker, as well as Lafarge's cessation of clinker imports into Tampa.

U.S. inventories of portland cement and cement clinker from Mexico[90]

Data with regard to inventories held by importers of portland cement and cement clinker from Mexico are presented in table 24.

Inventories of portland cement rose in real terms from 1986 to 1988, by 25.3 percent, then dropped by 29.2 percent in 1989. Inventories as a percent of total imports declined steadily from 1986 to 1989. Clinker inventories dropped to zero in 1988 and 1989 and remained there as of March 31, 1990.

[90] Available data with regard to importer inventories of imports from Japan is presented at p. A-58 of USITC, Cement from Japan, USITC Publication 2297.

Table 24
Portland cement and cement clinker: U.S. importers' inventories of imports from Mexico, by region and by product, as of Dec. 31 of 1986-89, and as of March 31 of 1989 and 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	End-of-period inventories (1,000 short tons)					
Southern-tier region:						
Portland cement	142	172	178	126	190	178
Cement clinker	***	***	0	0	0	0
Alternative Southern-tier region:						
Portland cement	142	172	178	126	190	178
Cement clinker	***	***	0	0	0	0
	Ratio to imports (percent)[1]					
Southern-tier region:						
Portland cement	5.8	5.5	4.8	4.0	6.2	7.2
Cement clinker	***	***	-	-	-	-
Alternative Southern-tier region:						
Portland cement	5.8	5.5	4.8	4.0	6.2	7.2
Cement clinker	***	***	-	-	-	-

[1] Ratios are based on data supplied by firms that reported both inventory and imports information. January-March ratios are based on annualized import data.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Consideration of the Causal Relationship Between Imports of the Subject Merchandise and the Alleged Material Injury

U.S. imports

According to official statistics of the U.S. Department of Commerce, total U.S. imports from Mexico of portland cement (table 25) increased 25 percent from 1986 to 1989. During the same period, total imports from Mexico of clinker (table 26) dropped by 61 percent.

Imports of portland cement from Mexico into the Southern-tier rose irregularly, by 20 percent, during 1986-89. 1988 was the peak year for such imports. As a share of total imports into the Southern-tier, Mexico's proportion increased from 42 percent in 1986 to 49 percent in 1988, then dipped to 47 percent in 1989. During 1986-89, clinker imports from Mexico dropped by 70 percent, whereas Mexico's share of total imports increased, albeit irregularly, from 36 percent to 47 percent. The Tampa Customs district was the leading recipient of imports from Mexico in both product categories during 1986-89.

Total U.S. imports of portland cement from Japan increased 324 percent during 1986-89. During the same period, imports from Japan into the Southern-tier rose by 395 percent. Japan's share of total imports into the Southern-tier increased from 5 percent in 1986 to 23 percent in 1989. During 1986-89, the Los Angeles Customs district received the largest portion of imports from Japan, with virtually all such imports going into the west coast. Minor imports of clinker from Japan into the Southern-tier were registered in 1986 and 1989, and none in the intervening years. Imports of clinker into the Southern-tier accounted for one-third of total imports from Japan in 1986 and one-sixth of the total in 1989.

Combined total U.S. imports of portland cement from Mexico and Japan increased irregularly, by 67 percent, during 1986-89. Imports into the Southern-tier rose similarly, by 60 percent, over the same period. From 1986 to 1989, the combined share of imports from Mexico and Japan among Southern-tier imports climbed from 47 percent to 70 percent. Combined clinker imports into the Southern-tier dropped by 69 percent from 1986 to 1989. During the same time, however, the combined share of total imports rose irregularly, from 39 percent to 53 percent.

Table 25
Portland cement: U.S. imports from Mexico, Japan, and all other sources, by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March 1989	January-March 1990
	Quantity (1,000 short tons)					
Southern-tier region:						
Mexico	2,959	3,535	4,132	3,553	826	722
Japan	349	486	1,222	1,726	289	320
Subtotal	3,308	4,022	5,354	5,278	1,115	1,042
All other sources	3,670	3,723	3,001	2,205	631	520
All sources	6,978	7,745	8,355	7,483	1,746	1,562
Alternative Southern-tier region:						
Mexico	2,851	3,302	3,858	3,263	761	695
Japan	349	486	1,183	1,606	289	320
Subtotal	3,200	3,788	5,041	4,869	1,050	1,015
All other sources	3,494	3,576	3,001	2,128	631	487
All sources	6,694	7,364	8,042	6,997	1,681	1,502
Total United States:						
Mexico	3,118	3,715	4,490	3,898	928	755
Japan	514	686	1,621	2,180	358	420
Subtotal	3,632	4,401	6,111	6,078	1,286	1,176
All other sources	8,454	9,430	9,114	7,504	1,529	1,072
All sources	12,086	13,831	15,225	13,583	2,815	2,248
	Value (1,000 dollars)[1]					
Southern-tier region:						
Mexico	101,440	120,854	124,310	114,346	25,232	23,192
Japan	11,977	17,373	40,361	54,567	8,333	9,504
Subtotal	113,418	138,226	164,671	168,913	33,565	32,696
All other sources	132,402	125,754	101,368	86,526	23,914	19,415
All sources	245,820	263,980	266,039	255,440	57,479	52,111
Alternative Southern-tier region:						
Mexico	97,960	114,483	116,529	106,173	23,429	22,569
Japan	11,977	17,373	38,756	50,115	8,333	9,489
Subtotal	109,938	131,855	155,285	156,289	31,761	32,058
All other sources	125,008	118,434	101,361	84,126	23,908	18,303
All sources	234,946	250,289	256,646	240,415	55,669	50,361
Total United States:						
Mexico	106,794	127,625	134,615	125,252	28,405	24,271
Japan	17,854	23,864	53,339	71,024	10,796	12,793
Subtotal	124,647	151,489	187,954	196,276	39,200	37,064
All other sources	306,000	334,175	336,148	303,940	61,578	43,339
All sources	430,647	485,664	524,102	500,216	100,778	80,403

See footnotes at end of table

Table 25--Continued
Portland cement: U.S. imports from Mexico, Japan, and all other sources, by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Percent of total quantity					
Southern-tier region:						
Mexico	42	46	49	47	47	46
Japan	5	6	15	23	17	20
Subtotal	47	52	64	70	64	66
All other sources	53	48	36	30	36	34
All sources	100	100	100	100	100	100
Alternative Southern-tier region:						
Mexico	43	45	48	47	45	46
Japan	5	7	15	23	17	21
Subtotal	48	52	63	70	62	67
All other sources	52	48	37	30	38	33
All sources	100	100	100	100	100	100
Total United States:						
Mexico	26	27	30	29	33	34
Japan	4	5	11	16	13	19
Subtotal	30	32	41	45	46	53
All other sources	70	68	59	55	54	47
All sources	100	100	100	100	100	100
	Unit value (per short ton)					
Southern-tier region:						
Mexico	$34.28	$34.19	$30.08	$32.18	$30.55	$32.12
Japan	34.32	35.75	33.03	31.61	28.83	29.70
Average	34.29	34.37	30.76	32.00	30.10	31.38
All other sources	36.08	33.78	33.78	39.24	37.90	37.34
Average, all sources	35.23	34.08	31.84	34.14	32.92	33.36
Alternative Southern-tier region:						
Mexico	34.36	34.67	30.20	32.54	30.79	32.47
Japan	34.32	35.75	32.76	31.20	28.83	29.65
Average	34.36	34.81	30.80	32.10	30.25	31.58
All other sources	35.78	33.12	33.78	39.53	37.89	37.58
Average, all sources	35.10	33.99	31.91	34.36	33.12	33.53
Total United States:						
Mexico	34.25	34.35	29.98	32.13	30.61	32.15
Japan	34.74	34.79	32.90	32.58	30.16	30.46
Average	34.32	34.42	30.76	32.29	30.48	31.52
All other sources	36.20	35.44	36.88	40.50	40.27	40.43
Average, all sources	35.63	35.11	34.42	36.83	35.80	35.77

[1] Landed duty-paid value.

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

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 26
Cement clinker: U.S. imports from Mexico, Japan, and all other sources, by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Quantity (1,000 short tons)					
Southern-tier region:						
Mexico	1,094	1,135	363	328	100	61
Japan	83	0	0	41	0	0
Subtotal	1,177	1,135	363	369	100	61
All other sources	1,864	1,210	653	337	97	75
All sources	3,041	2,345	1,016	706	197	136
Alternative Southern-tier region:						
Mexico	1,094	1,135	363	328	100	61
Japan	26	0	0	0	0	0
Subtotal	1,120	1,135	363	328	100	61
All other sources	1,864	1,210	653	337	97	75
All sources	2,984	2,345	1,016	665	197	136
Total United States:						
Mexico	1,095	1,215	437	423	129	87
Japan	234	37	137	235	25	28
Subtotal	1,329	1,252	574	658	154	115
All other sources	2,644	2,436	1,345	1,087	207	196
All sources	3,973	3,688	1,919	1,745	361	311
	Value (1,000 dollars)[1]					
Southern-tier region:						
Mexico	23,803	24,281	8,238	9,748	2,971	2,001
Japan	1,976	0	0	1,280	0	0
Subtotal	25,779	24,281	8,238	11,028	2,971	2,001
All other sources	44,521	29,947	19,291	9,585	2,617	3,186
All sources	70,300	54,228	27,529	20,613	5,588	5,187
Alternative Southern-tier region:						
Mexico	23,803	24,281	8,238	9,748	2,971	2,001
Japan	693	0	0	0	0	0
Subtotal	24,496	24,281	8,238	9,748	2,971	2,001
All other sources	43,885	29,947	19,291	9,585	2,617	3,186
All sources	68,381	54,228	27,529	19,333	5,588	5,187
Total United States:						
Mexico	23,823	26,241	10,415	13,647	4,119	3,175
Japan	6,191	1,222	4,281	7,598	838	946
Subtotal	30,014	27,463	14,696	21,245	4,957	4,121
All other sources	70,553	68,753	45,401	41,282	8,645	8,991
All sources	100,567	96,216	60,097	62,527	13,601	13,112

See footnotes at end of table.

Table 26--Continued
Cement clinker: U.S. imports from Mexico, Japan, and all other sources, by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Percent of total quantity					
Southern-tier region:						
Mexico	36	48	36	47	51	45
Japan	3	0	0	6	0	0
Subtotal	39	48	36	53	51	45
All other sources	61	52	64	47	49	55
All sources	100	100	100	100	100	100
Alternative Southern-tier region:						
Mexico	37	48	36	49	51	45
Japan	1	0	0	0	0	0
Subtotal	38	48	36	49	51	45
All other sources	62	52	64	51	49	55
All sources	100	100	100	100	100	100
Total United States:						
Mexico	28	33	23	24	36	28
Japan	6	1	7	14	7	9
Subtotal	34	34	30	38	43	37
All other sources	66	66	70	62	57	63
All sources	100	100	100	100	100	100
	Unit value (per short ton)					
Southern-tier region:						
Mexico	$21.76	$21.39	$22.69	$29.72	$29.71	$32.80
Japan	23.81	-	-	31.22	-	-
Average	21.90	21.39	22.69	29.89	29.71	32.80
All other sources	23.88	24.75	29.54	28.44	26.98	42.48
Average, all sources	23.12	23.12	27.10	29.20	28.37	38.14
Alternative Southern-tier region:						
Mexico	21.76	21.39	22.69	29.72	29.71	32.80
Japan	26.65	-	-	-	-	-
Average	21.87	21.39	22.69	29.72	29.71	32.80
All other sources	23.54	24.75	29.54	28.44	26.98	42.48
Average, all sources	22.92	23.12	27.10	29.07	28.37	38.14
Total United States:						
Mexico	21.19	21.60	23.83	32.26	31.93	36.49
Japan	26.46	33.03	31.25	32.33	33.52	33.79
Average	22.12	21.94	25.60	32.29	32.19	35.83
All other sources	26.68	28.22	33.76	37.98	41.76	45.87
Average, all sources	25.16	26.09	31.32	35.83	37.68	42.16

[1] Landed duty-paid value.

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

Source: Compiled from official statistics of the U.S. Department of Commerce.

Market penetration by LTFV and alleged LTFV imports

The ratio of imports of portland cement and clinker to apparent consumption for Mexico, Japan, and all other countries is shown in tables 27 and 28.

Mexico's share of portland cement consumption in the Southern-tier rose from 9 percent in 1986 to 13 percent in 1988, then dropped to 11 percent in 1989. Japan's share of consumption showed a steady rise from 1 percent in 1986 to 5 percent in 1989. The share of the market held by imports from all other sources dropped from 11 percent in 1986 and 1987 to 6 percent in 1989.

With respect to clinker imports in the Southern-tier, Mexico's share of the market dropped from 4 percent in 1986 to 1 percent in 1989. In the two years clinker imports from Japan were registered, the share they held was less than 0.5 percent. Imports from all other sources dropped from an 8-percent share of the market in 1986 to a 1-percent share in 1989.

Table 27
Portland cement: U.S. and regional apparent consumption, imports from Mexico, Japan, and all other sources, and ratios of imports to apparent consumption, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Quantity (1,000 short tons)					
Southern-tier region:						
Apparent consumption....	32,325	31,639	32,109	32,991	7,368	7,450
Imports:						
Mexico.....	2,826	3,391	4,031	3,515	822	722
Japan.....	349	487	1,222	1,726	289	320
Subtotal.....	3,175	3,878	5,252	5,241	1,112	1,042
All other sources.....	3,446	3,483	2,785	2,131	606	484
All sources.....	6,621	7,361	8,037	7,372	1,718	1,526
Alternative Southern-tier region:						
Apparent consumption....	26,486	25,746	25,842	26,566	6,124	6,087
Imports:						
Mexico.....	2,671	3,107	3,721	2,923	690	668
Japan.....	349	486	1,183	1,487	289	320
Subtotal.....	3,020	3,594	4,903	4,410	980	988
All other sources.....	3,191	3,252	2,709	1,951	598	405
All sources.....	6,211	6,846	7,612	6,361	1,578	1,393
Total United States:						
Apparent consumption....	89,033	90,458	89,856	89,175	15,872	17,295
Imports:						
Mexico.....	3,118	3,715	4,490	3,898	928	755
Japan.....	514	686	1,621	2,180	358	420
Subtotal.....	3,632	4,401	6,111	6,069	1,286	1,176
All other sources.....	8,454	9,430	9,114	7,504	1,529	1,072
All sources.....	12,086	13,831	15,225	13,583	2,815	2,248

Continued on next page

Table 27--Continued
Portland cement: U.S. and regional apparent consumption, imports from Mexico, Japan, and all other sources, and ratios of imports to apparent consumption, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Ratio of imports to consumption (percent)					
Southern-tier region:						
Mexico	9	11	13	11	12	10
Japan	1	2	4	5	4	4
Subtotal	10	13	17	16	15	14
All other sources	11	11	9	6	8	6
All sources	20	23	25	22	23	20
Alternative Southern-tier region:						
Mexico	10	12	14	11	11	11
Japan	1	2	5	6	5	5
Subtotal	11	14	19	17	16	16
All other sources	12	13	10	7	10	7
All sources	23	27	29	24	26	23
Total United States:						
Mexico	4	4	5	4	6	4
Japan	1	1	2	2	2	2
Subtotal	4	5	7	7	8	7
All other sources	10	10	10	8	10	6
All sources	14	15	17	15	18	13

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

Source: Apparent consumption is computed from Bureau of Mines data and information as reported in Inv. No. 731-TA-461 (Preliminary), Gray Portland Cement and Cement Clinker from Japan. Import data derived from official statistics of the U.S. Department of Commerce.

Table 28
Cement clinker: U.S. and regional apparent consumption, imports from Mexico, Japan, and all other sources, and ratios of imports to apparent consumption, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Quantity (1,000 short tons)					
Southern-tier region:						
Apparent consumption....	25,385	24,601	24,292	25,354	5,854	5,809
Imports:						
Mexico.....	1,040	902	363	313	100	61
Japan.....	83	0	0	41	0	0
Subtotal.....	1,123	902	363	354	100	61
All other sources.....	1,815	947	530	276	74	69
All sources.....	2,938	1,849	893	630	174	130
Alternative Southern-tier region:						
Apparent consumption....	19,694	18,623	18,182	19,143	4,452	4,485
Imports:						
Mexico.....	1,040	902	363	313	100	61
Japan.....	27	0	0	0	0	0
Subtotal.....	1,067	902	363	313	100	61
All other sources.....	1,788	947	530	276	74	69
All sources.....	2,855	1,849	893	589	174	130
Total United States:						
Apparent consumption....	72,608	72,407	72,358	71,036	(1)	(1)
Imports:						
Mexico.....	1,095	1,215	437	423	129	87
Japan.....	234	37	137	235	25	28
Subtotal.....	1,329	1,252	574	658	154	115
All other sources.....	2,644	2,436	1,345	1,087	207	196
All sources.....	3,973	3,688	1,919	1,745	361	311

See footnote at end of table.

Table 28--Continued
Cement clinker: U.S. and regional apparent consumption, imports from Mexico, Japan, and all other sources, and ratios of imports to apparent consumption, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Ratio of imports to consumption (percent)					
Southern-tier region:						
Mexico	4	4	1	1	2	1
Japan	(2)	0	0	(2)	0	0
Subtotal	4	4	1	1	2	1
All other sources	8	4	2	1	1	1
All sources	12	8	4	2	3	2
Alternative Southern-tier region:						
Mexico	5	5	2	2	2	1
Japan	(2)	0	0	0	0	0
Subtotal	5	5	2	2	2	1
All other sources	9	5	3	1	2	2
All sources	14	10	5	3	4	3
Total United States:						
Mexico	2	2	1	1	(1)	(1)
Japan	(2)	(2)	(2)	(2)	(1)	(1)
Subtotal	2	2	1	1	(1)	(1)
All other sources	4	3	2	2	(1)	(1)
All sources	5	5	3	2	(1)	(1)

[1] Not available from Bureau of Mines.
[2] Less than 0.5 percent.

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

Source: Regional apparent consumption is computed from data submitted in response to questionnaires of the U.S. International Trade Commission and official import statistics of the U.S. Department of Commerce. Total United States clinker consumption is computed from Bureau of Mines data and official import statistics of the U.S. Department of Commerce. Import data derived from official statistics of the U.S. Department of Commerce.

Prices[91]

Portland cement is a primary ingredient in the production of concrete, and thus, is essential to all types of general construction, particularly residential building, commercial building, and highways. The demand for portland cement tends to be cyclical in nature because it is determined by the level of general construction. However, the cement business cycle is likely to be somewhat less volatile than individual construction markets because cement is used in nearly every type of construction and cycles among these market segments frequently offset each other. In addition, overall cement consumption benefits from the fact that regional business cycles are often localized.[92] [93] The demand for portland cement also tends to be seasonal in nature, with peaks in consumption occurring in the summer months when the level of construction is highest.[94]

One indicator of construction is the number of authorizations for building permits for private nonresidential construction. The following table (table 29) shows the number of these authorizations in 8 of the 12 market areas for which pricing was requested.[95] Of these eight areas, only San Diego had an increase in the number of authorized permits.

Because transportation costs for portland cement are high, shipments are generally made within 200 miles of the plant.[96] As a result, the market for cement tends to be regional in nature. The demand in each region is influenced by many different factors, such as demographic movements, industrial development patterns, public spending levels, and local availability of competitive building materials.[97] [98] Therefore, demand for cement can be growing in one region while declining in another.

In general, there are no substitutes for cement in the production of concrete.[99] There are, however, several substitutes for concrete. In the

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[91] Available data with respect to prices of portland cement imported from Japan is presented at pp. A-72-85, USITC, Cement from Japan, USITC Publication 2297.

[92] In fact, many producers have cement plants in different regions, allowing them to take advantage of different demand in different regions.

[93] The U.S. Cement Industry, an Economic Report, Third Edition, January 1984, p. 15.

[94] Because of this seasonality, producers tend to build up inventories of clinker and finished cement in the winter; this allows producers to grind more cement per day during the building season (Ibid, p. 14).

[95] Source: Construction Review, U.S. Department of Commerce, January/February 1990, Volume 36, # 1, pp. 29-34.

[96] If water transportation is available, cement can be shipped further than 200 miles, broadening the market area for that supplier.

[97] For example, California voters recently approved a gasoline tax that is earmarked for transportation projects. Since transportation projects are often cement-intensive, it is probable that cement consumption will be positively affected by this tax.

[98] U.S. Department of Commerce, A Competitive Assessment of the U.S. Cement Industry, July 1987, p. 9.

[99] While most U.S. producers and importers reported no substitutes, some reported that flyash may be used as a partial substitute for cement as an admixture in the production of concrete. However, flyash can only be used for

(continued...)

Table 29
Total private nonresidential construction authorized by building permits in selected statistical areas, 1986-89

(Units)

Statistical area	1986	1987	1988	1989
Houston, TX.....	836.6	750.2	753.5	637.1
New Orleans, LA.....	352.9	292.8	247.7	245.9
Phoenix, AZ.....	1,195.7	1,292.6	1,177.6	932.0
San Antonio, TX.....	453.9	398.8	297.8	204.5
San Diego, CA.....	982.0	1,042.6	1,071.4	1,094.0
San Francisco, CA....	699.0	692.2	807.0	646.6
Tampa, FL.....	1,086.4	973.5	875.0	834.2
West Palm Beach, FL..	479.2	486.2	464.5	458.7

Source: Construction Review, U.S. Department of Commerce, January/February 1990, Volume 36, # 1.

nonresidential construction market, structural steel is the primary substitute for concrete, while wood is the main substitute for concrete in the residential construction market. Other substitutes for concrete include asphalt (in the paving market), brick, precast concrete panels, and certain products of metal, glass, and plastics.[100]

Since portland cement has a low value-to-weight ratio, inland transportation costs are an important part of the final delivered price to a customer. Prices can differ from location to location, even within a single metropolitan area. However, because cement is a homogeneous product, prices charged by different suppliers to a customer in a given location should be similar at any point in time. When changing supply and demand conditions cause prices to decrease, prices tend to equalize between the competing firms within a relatively short time period, as each firm tries to maintain its market share.

Cement prices have traditionally been determined through a "base-point" pricing system. Under this system, the cement mill closest to a particular customer is considered that customer's base point, and that mill effectively sets the price against which other producers must compete. A delivered price for cement consists of an f.o.b. mill price and any freight costs. In areas where freight costs are regulated, a mill may be forced to reduce its f.o.b. price component and its gross revenues in order to compete with the base-point mill.[101] In general, firms trying to enter new markets farther from

[98](...continued)
certain applications, and in most cases could only replace 10-15 percent of the portland cement. Therefore, it is unlikely that flyash would be an acceptable substitute for type I or type II portland cement (Ibid, p. 10).

[100] Ibid, p. 11.

[101] Trucking rates are not regulated in Florida or Arizona. However, there are regulations in Texas and California that do affect trucking, U.S. International Trade Commission, Transcript of Public Conference (hereinafter "Conference transcript"), October 17, 1989, p. 85. For those areas where

(continued...)

their plant have to absorb additional freight costs in order to compete with firms closer to the markets.[102] Thus, distance plays an important role in a supplier's willingness and ability to sell to a particular customer.

Shipments of portland cement, in bulk, by mode of transportation in 1989 are shown in table 30. Shipments of portland cement from the U.S. producers' plants to their distribution terminals accounted for about 28 percent of total shipments and were by rail, truck, and barge. Rail (40 percent) and barges and boats (42 percent) carried the majority of the cement to the terminals, and trucks accounted for most of the remainder. More than 60 percent of total shipments went directly to consumers and the vast majority, 89.1 percent, of such shipments was made by truck. Most highway transport trucks carry about 26 short tons of cement, whereas a standard rail car hauls about 100 short tons. A standard barge transports approximately 1,500 short tons of dry material.

Table 30
Portland cement: Shipments from U.S. plants, in bulk,[1] by types of carriers, 1989

(1,000 short tons)

Type of carrier	Plant to terminal	Terminal to consumers	Plant to consumers	Total to consumers
Railroad.....	8,915	1,525	3,041	4,566
Truck.....	3,408	27,210	44,306	71,516
Barge and boat..	9,392	2,879	214	3,093
Unspecified[2]....	517	495	581	1,076
Total.....	22,232	32,109	48,324	80,251

[1] Bulk shipments accounted for 95.3 percent of total shipments in 1989.
[2] Includes cement used at the plant.

Source: U.S. Bureau of Mines, Mineral Industry Surveys, "Cement in 1989," July 13, 1990.

The actual hauling of cement to end users is generally performed by independent common carriers or by subsidiary trucking firms of ready-mix companies. Many ready-mix companies have trucks and often pick up the cement at the plant for their basic needs. For example, in Florida, 85-90 percent of cement shipments are transported via common carrier.[103] Since transportation costs for portland cement account for a significant portion of the delivered price, shipments are generally made relatively close to the plant. U.S. producers reported that at least 80 percent of their shipments of cement are made within 200 miles of their plant or terminal.[104]

[101](...continued)
freight rates are deregulated, the discount could be from the freight rate, the f.o.b. price, or both.
[102] Conference transcript, p. 86.
[103] Conference transcript, p. 86.
[104] Several producers reported that approximately 80 percent or more of their shipments are within 100 miles of their location.

Producers and importers were asked to estimate the transportation costs for sales within specific distances from each firm's plant or storage facility. Average transportation costs reported by U.S. producers for shipments within 50 miles of the plant were $5.79 per ton. Average shipping costs increased to $9.86 for shipments within 51-100 miles, to $14.53 for 101-200 miles, and to $18.86 for 201-300 miles. For shipments that are 500 or more miles from the plant, transportation costs increased significantly to $25.85 per ton.[105] Average transportation costs reported by U.S. importers of Japanese cement were: $5.36 for 0-50 miles, $8.67 for 51-100 miles, and $14.84 for 101-200 miles.[106]

Leadtimes for delivery of domestic and imported cement are similar, with the majority of producers and importers responding that delivery occurs within 24 hours. Most producers and importers stated that the minimum quantity requirement for deliveries of cement is one truckload, i.e., 25-26 tons. Producers and importers do not generally charge a premium for subminimum quantity purchases; however, purchasers are sometimes required to pay shipping charges for a full truckload.

The Commission requested price data from U.S. producers and importers of Mexican cement for their sales to 12 distinct market areas in Florida, Alabama, Mississippi, Louisiana, Texas, New Mexico, Arizona, and California (i.e., the "Southern-tier region").[107] The market areas chosen for price comparisons were Albuquerque, NM; Houston, TX; Mobile, AL; New Orleans, LA; Orange County, CA; Phoenix, AZ; San Antonio, TX; San Diego, CA; San Francisco, CA; Tampa, FL; Tucson, AZ; and West Palm Beach, FL. Producers and importers were requested to provide price data for their total shipments to a ready-mix customer purchasing the largest volume (within a 300-700 ton range) in the fourth full week of each month from January 1986 to March 1990. Pricing data reported by U.S. producers and importers represented approximately 40 and 63 percent, respectively, of their shipments in the Southern-tier region.[108]

Price trends and comparisons.--Pricing data reported by producers are analyzed on a delivered basis because of the significance of freight costs for cement. Due to the seasonal nature of the cement market, prices in all markets tend to fluctuate within each year.

Tampa, FL.--Weighted-average delivered prices reported by U.S. producers for sales in the Tampa market area fluctuated within each year and ended the period slightly higher (i.e., less than *** percent) than they were in March 1986 (table 31).[109]

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[105] Only two U.S. producers reported shipping cement more than 500 miles, and these shipments accounted for only about *** and *** percent of their total shipments.

[106] None of the responding importers reported shipping cement farther than 200 miles.

[107] In the context of this discussion, a market area is defined as a relatively narrow geographic area within which a delivered price can be examined.

[108] Coverage figures for both producers and importers include sales of cement in additional market areas in the regions; thus, the actual coverage for price data shown in the tables is lower.

[109] In discussing overall trends, prices in March 1990 are compared with those in the corresponding month in 1986 because of the seasonal nature of prices.

Prices of Mexican portland cement generally increased during the period of investigation. Prices in March 1990 were approximately *** percent higher than the level in March 1986. In 33 of the 51 months where comparisons were possible, the Mexican product undersold the domestic product, with margins ranging from 1.0 to 13.7 percent. In the remaining 18 months, the Mexican product was between 0.1 and 9.5 percent higher-priced than the domestic product.

Table 31
Portland cement: Weighted-average delivered prices and margins of under/(over) selling reported by U.S. producers and importers for sales in the Tampa, FL, market area, by month, January 1986-March 1990

	(Per short ton)		
Period	U.S. price	Mexican price	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

West Palm Beach, FL.--Domestic prices in the West Palm Beach market area generally increased during the period of investigation (table 32). Prices were relatively stable during 1986 and then showed a slight decline during 1987. Prices were about *** percent higher in January 1988 than they were in January 1987 and they remained at that level throughout 1988. Prices increased during January-December 1989 (***) and during January-March 1990 (***).

Table 32
Portland cement: Weighted-average delivered prices and margins of under/(over) selling reported by U.S. producers and importers for sales in the West Palm Beach, FL, market area, by month, January 1986-March 1990

	(Per short ton)		
Period	U.S. price	Mexican price	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Prices for Mexican cement in the West Palm Beach area were only reported for eight months during January 1989-March 1990. These prices increased *** percent during the period January-July 1989. In 5 of the 8 months where comparisons were possible, the Mexican product undersold the domestic product, with margins ranging from 2.4 to 4.6 percent. In the remaining 3 months, the price of the Mexican product was between 1.6 and 2.6 percent higher than the domestic product.

Mobile, AL.--Prices for cement sold in the Mobile market area were reported by two U.S. producers and no importers; thus, no price comparisons can be made. Domestic prices declined approximately *** percent in 1986 from $*** to $***, and less than *** percent in 1987 (i.e., from $*** to $***). Prices were $*** in January 1988, a *** percent decrease from December 1987; these prices then rose *** percent during 1988 but did not reach the level of December 1987. Prices fluctuated during 1989 with the level in December *** percent lower than that of January. Domestic prices were slightly higher in 1990 than they were at the end of 1989.

New Orleans, LA.--Prices for domestic cement sold in the New Orleans market area fluctuated but had an overall increase of approximately *** percent during the period of investigation (table 33). Domestic prices rose *** percent in 1986 and were then constant at $*** from September 1986 to August 1988, before declining *** percent to $*** in September 1988. Domestic prices increased *** percent during 1989 and then *** percent in January 1990.

Prices for Mexican cement fluctuated during the period January 1986 to December 1987. Mexican prices increased approximately *** percent in 1986 before decreasing *** percent in 1987. The Mexican product undersold the domestic product in all 24 months where comparisons were possible; margins ranged from 7.2 to 18.0 percent.

Table 33
Portland cement: Weighted-average delivered prices and margins of under/(over) selling reported by U.S. producers and importers for sales in the New Orleans, LA, market area, by month, January 1986-March 1990

(Per short ton)

Period	U.S. price	Mexican price	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Houston, TX.--Weighted-average delivered prices reported by U.S. producers for sales in the Houston market area fluctuated within each year and ended the period in March 1990 at a level about *** percent lower than those in March 1986 (table 34).

Similarly, prices for Mexican cement also tended to decline during the period. Prices in June 1989 were about *** percent below those of the corresponding month of 1986. Prices for Mexican cement were lower than those for domestic cement in 23 of the 36 months where price comparisons were possible; margins ranged from 0.5 to 10.3 percent. In the 11 months Mexican prices were higher, they were between 0.9 and 18.0 percent above those for the domestic product.

Table 34
Portland cement: Weighted-average delivered prices and margins of under/(over) selling reported by U.S. producers and importers for sales in the Houston, TX, market area, by month, January 1986-March 1990

(Per short ton)

Period	U.S. price	Mexican price	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

San Antonio, TX.--Prices for domestic cement in the San Antonio market area tended to follow a somewhat seasonal pattern (table 35). For the years 1986-88, prices declined within each year but increased from December to the following January. In 1989, prices fluctuated, showing no clear trend. Prices in March 1990 were approximately *** percent lower than they were in the corresponding month in 1986.

Prices for Mexican cement were stable in 1986 but then increased *** percent from December 1986 to January 1987. Prices decreased during most of 1987 but then increased in October 1987 and again in January 1988. Mexican prices declined *** percent in 1988 and were then constant from November 1988 to June 1989. Prices for Mexican cement were lower than those for domestic cement in 27 of the 38 months where comparisons were possible; margins ranged from 0.2 to 12.4 percent. In the 9 months the Mexican product was priced higher, they were 0.1 to 10.1 percent above the domestic product.

Table 35
Portland cement: Weighted-average delivered prices and margins of under/(over) selling reported by U.S. producers and importers for sales in the San Antonio, TX, market area, by month, January 1986-March 1990

(Per short ton)

Period	U.S. price	Mexican price	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Albuquerque, NM.--Domestic prices fluctuated during 1986 and 1987 and then declined during 1988 and 1989 (table 36). Prices in March 1990 were approximately *** percent lower than those in March 1986.

Prices for Mexican cement fluctuated during 1986 and 1987, declined during 1988, and then were relatively constant during 1989 and January-March 1990. In 3 of the 40 months for which price comparisons were possible, the Mexican product undersold the domestic product, with margins ranging from 7.4 to 9.7 percent. In the other 37 months, the Mexican product was priced between 0.04 and 23.0 percent above the domestic product.

Table 36
Portland cement: Weighted-average delivered prices and margins of under/(over) selling reported by U.S. producers and importers for sales in the Albuquerque, NM, market area, by month, January 1986-March 1990

(Per short ton)

Period	U.S. price	Mexican price	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Phoenix, AZ.--Prices reported by U.S. producers for sales in the Phoenix market area fluctuated during 1986, then tended to decline through 1988, before showing an increase during the remainder of the period of investigation (table 37). Overall, domestic prices were approximately *** percent lower in March 1990 than they were in March 1986.

Prices for Mexican cement also declined during the period. Prices *** from March 1986 to June 1987, then *** in late 1987, before *** in 1988 and 1989.[110] Prices for Mexican cement were approximately *** percent lower in March 1990 than they were in March 1986. In 41 of the 48 months where price comparisons were possible, Mexican cement undersold the domestic product by between 0.6 and 12.4 percent. The Mexican product was between 0.1 and 6.0 percent higher-priced than the domestic product in the remaining 7 months.

[110] Only one importer reported prices during the period January 1986-September 1987.

Table 37
Portland cement: Weighted-average delivered prices and margins of under/(over) selling reported by U.S. producers and importers for sales in the Phoenix, AZ, market area, by month, January 1986-March 1990

	(Per short ton)		
Period	U.S. price	Mexican price	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Tucson, AZ.--Prices were reported by one producer in the Tucson market area. Domestic prices *** fairly steadily throughout the period, *** percent from May 1986 to January 1990. No usable pricing data were received from importers. ***.

San Diego, CA.--Domestic prices in the San Diego market area fluctuated during the period of investigation but had an overall increase of *** percent (table 38). In 1986 and 1987, these prices increased irregularly, but they then decreased in 1988 and 1989. Prices were slightly higher in January-March 1990 than they were in the same period of 1986.

Prices for Mexican cement in the San Diego market area had a slight overall increase (i.e., approximately *** percent). In 1986, Mexican prices decreased *** percent; prices were slightly higher in January 1987 than December 1986, but they declined *** percent during 1987 and *** percent during 1988. Mexican prices then increased by *** percent during 1989. In 36 of the 44 months where price comparisons were possible, Mexican cement undersold the domestic product by between 0.6 and 10.1 percent. The Mexican product was priced between 1.4 and 9.8 percent above the domestic product in the remaining 8 months.

Table 38
Portland cement: Weighted-average delivered prices and margins of under/(over) selling reported by U.S. producers and importers for sales in the San Diego, CA, market area, by month, January 1986-March 1990

	(Per short ton)		
Period	U.S. price	Mexican price	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Orange County, CA.--Weighted-average prices for domestic cement in the Orange County market area declined irregularly during the period of investigation (table 39). Prices decreased approximately *** percent in 1986, *** percent in 1987, and *** percent in 1988. During 1989, prices in the Orange County market area increased approximately *** percent; however, they declined slightly in January-March 1990. Domestic prices in Orange County were approximately *** percent lower in March 1990 than they were in March 1986.

Prices for Mexican cement declined *** percent in 1986 and *** percent in 1987. Mexican prices were approximately *** percent higher in January 1988 than in December 1987; however, these prices fell *** percent during 1988. Prices for Mexican cement increased *** percent in 1989 and showed little change in January-March 1990. In 31 of the 47 months where comparisons were possible, the Mexican product undersold the domestic product; margins ranged from 1.4 to 12.4 percent. Prices for Mexican cement were higher than those for the domestic product in the remaining 16 months, with margins ranging from 0.1 to 4.4 percent.

Table 39
Portland cement: Weighted-average delivered prices and margins of under/(over) selling reported by U.S. producers and importers for sales in the Orange County, CA, market area, by month, January 1986-March 1990

	(Per short ton)		
Period	U.S. price	Mexican price	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

San Francisco, CA.--Weighted-average prices in the San Francisco area were only reported by one U.S. producer; these prices *** during the period January 1986-March 1990 (table 40). Prices in San Francisco *** during 1986, *** approximately *** percent. Prices *** in 1987 at a level about *** percent *** than that in December 1986. During 1988, prices in the San Francisco market area fluctuated but had an overall *** of approximately *** percent. Prices *** during 1989 before *** about *** percent in January 1990; prices were approximately *** percent *** in March 1990 than they were in March 1986.

Prices for Mexican cement in the San Francisco market area increased irregularly during the period January 1987-March 1990. Prices for the Mexican product decreased during 1987 and 1988, falling *** percent in 1987 and less than *** percent in 1988. In 1989, prices fluctuated, with no real trend. Prices were about *** percent higher in March 1990 than they were in March 1987. In all 38 months where comparisons were possible, Mexican cement undersold the domestic product; margins ranged from 0.1 to 16.2 percent.

Table 40
Portland cement: Weighted-average delivered prices and margins of under/(over) selling reported by U.S. producers and importers for sales in the San Francisco, CA, market area, by month, January 1986-March 1990

	(Per short ton)		
Period	U.S. price	Mexican price	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Purchaser responses

Purchaser questionnaires were sent to approximately 60 firms identified as ready-mix concrete producers that purchase portland cement.[111] Responses were received from 31 of these establishments, with about 27 providing usable information. These firms purchase portland cement to manufacture concrete to sell to building, highway, and residential building contractors.

Purchasers were asked to list the three major factors generally considered by the firm in deciding from whom to purchase portland cement. The reasons given included pricing, quality, availability, technical assistance, and dependability of the supplier. Price was named most often as one of the three most important criteria. Twenty-five of 28 purchasers ranked price in the top three, while 16 of them stated that price was the most important factor. Quality was second, with 21 purchasers reporting that it is an important factor in their purchasing decision.[112] Another factor mentioned frequently was availability; this is important because cement is the main ingredient in concrete and thus, ready-mix concrete producers usually buy cement as often as every day.

The cement industry has a relatively high degree of vertical integration, with many ready-mix concrete companies being owned by, or related to, cement producers. Many ready-mix producers reported that they compete for sales with the manufacturers or importers from whom they purchase cement. Manufacturers that were named as competitors of ready-mix producers include ***. Some purchasers commented that it is difficult to compete with these vertically-integrated firms because they are often able to offer lower prices for concrete.

All but one of the purchasers reported using trucks to pick up the cement that they buy.[113] Ready-mix concrete producers use both common carrier and

[111] Questionnaires were only sent to ready-mix producers because they are the largest consumers of portland cement, accounting for approximately 74 percent of consumption.

[112] One purchaser, ***, reported that quality is not an issue and that availability has become extremely important, even more so than price in *** market areas.

[113] ***. The other 28 reporting purchasers stated that 100 percent of their shipments were by trucks.

their own private vehicles to transport cement. Many of these ready-mix companies use privately-owned trucks for transportation; this can be both cost-effective and convenient for the frequent purchases that are made. Purchasers were also asked to estimate the typical U.S.-inland freight costs paid by the firm for both domestic and imported portland cement. Data received indicate that the average freight costs for domestic and imported cement are similar. These costs averaged between approximately 5 and 20 percent of the f.o.b. plant and warehouse prices. Twelve purchasers also reported that U.S. producers generally equalize freight from the plant to their location. Of those 12, 10 reported that the Mexican suppliers also equalized freight costs from the warehouse.

Purchasers were asked to discuss the quality of the Mexican product vis-a-vis the domestic product. All but 2 of the 23 responding purchasers agreed that the quality of the two is comparable. The other two purchasers reported that the Mexican product is superior.

Prices.--Purchasers were requested to provide pricing data for their largest purchases (within a 300-700 ton range) of both domestic and Mexican cement for a specific market area.[114] Because purchasers were selected without regard to market area, pricing data were received for a number of cities in which market conditions varied substantially. Therefore, weighted-average purchase prices are not calculated. However, several purchasers reported purchase prices for both domestic and Mexican cement; thus, price comparisons can be made for an individual purchaser's prices for domestic and Mexican cement. These prices are shown in the tables in appendix G. For a given purchaser, the prices for the domestic and imported product were generally similar in most months. Of the 253 months where comparisons were possible, the Mexican product undersold the domestic product in 147 months; margins ranged from less than 1 percent to 20 percent. The domestic product was priced below the Mexican product in 101 months, with margins ranging from less than 1 percent to 12 percent. In 5 months, the domestic and Mexican products were priced the same.

Lost sales and lost revenues[115]

The Commission received allegations of lost sales and lost revenues from 11 U.S. producers in the Southern-tier region. The 61 lost sales allegations submitted by producers totaled approximately $72 million and involved 1.2 million tons of portland cement allegedly purchased from Mexican suppliers during the period January 1986 to March 1990. The 117 lost revenue allegations submitted by producers totaled approximately $13.2 million and involved approximately 2 million tons of portland cement. Staff contacted 8 purchasers that accounted for 22 of the allegations; a summary of the information obtained follows.[116] [117] [118] [119]

* * * * * * *

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[114] Purchasers were asked to indicate the city and state for which pricing data were reported.

[115] Available data concerning lost sales and lost revenues alleged to have occurred due to imports of portland cement from Japan is presented at pp. A-83-84, USITC, Cement from Japan, USITC Publication 2297.

[116] ***.

[117] ***.

[118] ***.

[119] ***.

Exchange rates[120]

Quarterly data reported by the International Monetary Fund indicate that during January-March 1986 through January-March 1990 the nominal value of the peso depreciated by 84.1 percent overall relative to the U.S. dollar, declining in every quarter except two (table 41).[121] Adjusted for movements in producer price indexes in the United States and Mexico, the real value of the Mexican currency appreciated 17.8 percent overall between January-March 1986 and the first quarter of 1990.

Table 41
Exchange rates:[1] Indexes of nominal and real exchange rates of the Mexican peso and indexes of producer prices in the United States and Mexico,[2] by quarters, January 1986-March 1990

Period	U.S. producer price index	Mexican producer price index	Nominal exchange rate index	Real exchange rate index[3]
1986:				
January-March.....	100.0	100.0	100.0	100.0
April-June.....	98.2	115.9	81.1	95.8
July-September.....	97.7	141.7	63.6	92.3
October-December....	98.1	172.0	50.7	88.9
1987:				
January-March.....	99.2	207.7	41.3	86.5
April-June.....	100.8	268.2	34.1	90.8
July-September.....	101.9	343.3	29.0	97.7
October-December....	102.3	428.5	23.7	99.4
1988:				
January-March.....	102.9	597.8	18.8	109.4
April-June.....	104.8	644.8	18.6	114.3
July-September.....	106.2	668.9	18.6	117.0
October-December....	106.7	681.7	18.6	118.7
1989:				
January-March.....	109.0	718.9	18.2	120.2
April-June.....	110.9	742.5	17.5	117.5
July-September.....	110.4	759.7	16.9	116.2
October-December....	110.9	788.7	16.3	116.0
1990:				
January-March.....	112.6	833.0[4]	15.9[4]	117.8[4]

[1] Exchange rates expressed in U.S. dollars per Mexican dollar.
[2] Producer price indexes--intended to measure final product prices--are based on period-average quarterly indexes presented in line 63 of the International Financial Statistics.
[3] The real exchange rate is derived from the nominal rate adjusted for relative movements in producer prices in the United States and Mexico.
[4] Derived from Mexican exchange rate and price data reported for January only.

Note.--January-March 1986 = 100.

Source: International Monetary Fund, International Financial Statistics, May 1990.

[120] Available data with respect to the Japanese yen is presented at pp. A-84-85 of USITC, Cement from Japan, USITC Publication 2297.
[121] International Financial Statistics, May 1990.

APPENDIX A

FEDERAL REGISTER NOTICES OF THE U.S. INTERNATIONAL TRADE COMMISSION AND THE DEPARTMENT OF COMMERCE

[Investigation No. 731-TA-451 (Final)]

Gray Portland Cement and Cement Clinker From Mexico

AGENCY: United States International Trade Commission.

ACTION: Institution of a final antidumping investigation and scheduling of a hearing to be held in connection with the investigation.

SUMMARY: The Commission hereby gives notice of the institution of final antidumping investigation No. 731-TA-451 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) (the act) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Mexico of gray portland cement and cement clinker, provided for in subheadings 2523.10.00, 2523.29.00, and 2523.90.00 of the Harmonized Tariff Schedule of the United States (previously under item 511.14 of the former Tariff Schedules of the United States), that have been found by the Department of Commerce, in a preliminary determination, to be sold in the United States at less than fair value (LTFV). Unless the investigation is further extended, Commerce will make its final LTFV determination on or before July 10, 1990 and the Commission will make its final injury determination by August 23, 1990 (see sections 735(a) and 735(b) of the act (19 U.S.C. 1673d(a) and 1673d(b))).

For further information concerning the conduct of this investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 207, subparts A and C (19 CFR part 207), and part 201, subparts A through E (19 CFR part 201).

EFFECTIVE DATE: April 8, 1990.

FOR FURTHER INFORMATION CONTACT: Jim McClure (202-252-1191), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-252-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-252-1000.

SUPPLEMENTARY INFORMATION:

Background

This investigation is being instituted as a result of an affirmative preliminary determination by the Department of Commerce that imports of gray portland cement and cement clinker from Mexico are being sold in the United States at less than fair value within the meaning of section 733 of the act (19 U.S.C. 1673). The investigation was requested in a petition filed on September 28, 1989 by counsel on behalf of the Ad Hoc Committee of AZ-NM-TX-FL Producers of Gray Portland Cement of Washington, DC. In response to that petition the Commission conducted a preliminary antidumping investigation and, on the basis of information developed during the course of that investigation, determined that there was a reasonable indication that an industry in the United States was materially injured by reason of imports of the subject merchandise (54 FR 46326).

Participation in the Investigation

Persons wishing to participate in this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than May 24, 1990. Any entry of appearance filed after this date will be referred to the Chairman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

Public Service List

Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance. In accordance with §§ 201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), each public document filed by a party to the investigation must be served on all other parties to the investigation (as identified by the public service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

Limited Disclosure of Business Proprietary Information Under a Protective Order and Business Proprietary Information Service List

Pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)), the Secretary will make available business proprietary information gathered in this final investigation to authorized applicants under a protective order, provided that the application be made not later than May 24, 1990. A separate service list will be maintained by the Secretary for those parties authorized to receive business proprietary information under a protective order. The Secretary will not accept any submission by parties containing business proprietary information without a certificate of service indicating that it has been served on all the parties that are authorized to receive such information under a protective order.

Staff Report

The prehearing staff report in this investigation will be placed in the nonpublic record on June 29, 1990, and a public version will be issued thereafter, pursuant to § 207.21 of the Commission's rules (19 CFR 207.21).

Hearing

The Commission will hold a hearing in connection with this investigation beginning at 9:30 a.m. on July 19, 1990, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission not later than the close of business (5:15 p.m.) on July 6, 1990. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on July 11, 1990, at the U.S. International Trade Commission Building. Pursuant to § 207.22 of the Commission's rules (19 CFR 207.22) each party is encouraged to submit a prehearing brief to the Commission. The deadline for filing prehearing briefs is July 12, 1990. If prehearing briefs contain business proprietary information, a non-business proprietary version is due July 13, 1990.

Testimony at the public hearing is governed by § 207.23 of the Commission's rules (19 CFR 207.23). This rule requires that testimony be limited to a nonbusiness proprietary summary and analysis of material contained in prehearing briefs and to information not available at the time the prehearing brief was submitted. Any written materials submitted at the hearing must be filed in accordance with the procedures described below and any business proprietary materials must be submitted at least three (3) working days prior to the hearing (see § 201.6(b)(2) of the Commission's rules (19 CFR 201.6(b)(2))).

Written Submissions

Prehearing briefs submitted by parties must conform with the provisions of § 207.22 of the Commission's rules (19 CFR 207.22) and should include all legal arguments, economic analyses, and factual materials relevant to the public

hearing. Posthearing briefs submitted by parties must conform with the provisions of § 207.24 (19 CFR 207.24) and must be submitted not later than the close of business on July 25, 1990. If posthearing briefs contain business proprietary information, a non-business proprietary version is due July 26, 1990. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before July 25, 1990.

A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the Commission's rules (19 CFR 201.8). All written submissions except for business proprietary data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any information for which business proprietary treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Business Proprietary Information." Business proprietary submissions and requests for business proprietary treatment must conform with the requirements of §§ 201.6 and 207.7 of the Commission's rules (19 CFR 201.6 and 207.7).

Parties which obtain disclosure of business proprietary information pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)) may comment on such information in their prehearing and posthearing briefs, and may also file additional written comments on such information no later than July 30, 1990. Such additional comments must be limited to comments on business proprietary information received in or after the posthearing briefs. A non-business proprietary version of such additional comments is due July 31, 1990.

Authority

This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.20 of the Commission's rules (19 CFR 207.20).

By order of the Commission.

Issued: April 25, 1990.

Kenneth R. Mason,

Secretary.

[FR Doc. 90-10301 Filed 5-2-90; 8:45 am]

BILLING CODE 7020-02-M

Department of Commerce by counsel on behalf of members of the Ad Hoc Committee of AZ–NM–TX–FL Producers of Gray Portland Cement, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV imports of gray portland cement and cement clinker from Mexico. Accordingly, effective September 26, 1989, the Commission instituted preliminary antidumping investigation No. 731–TA–451 (Preliminary).

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of October 2, 1989 (54 FR 40531). The conference was held in Washington, DC, on October 17, 1989, and all persons who requested the opportunity were permitted to appear in person or by counsel.

The Commission transmitted its determination in this investigation to the Secretary of Commerce on November 13, 1989. The views of the Commission are contained in USITC Publication 2235 (November 1989), entitled "Gray Portland Cement and Cement Clinker from Mexico: Determination of the Commission in Investigation No. 731–TA–451 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation."

Issued: November 16, 1989.

By Order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 89-27458 Filed 11-21-89; 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 731-TA-451 (Preliminary)]

Gray Portland Cement and Cement Clinker From Mexico

Determination

On the basis of the record [1] developed in the subject investigation, the Commission determines,[2] pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from Mexico of gray portland cement and cement clinker, provided for in subheadings 2523.10.00, 2523.29.00, and 2523.90.00 of the Harmonized Tariff Schedule of the United States (previously reported under item 511.14 of the Tariff Schedules of the United States), that are alleged to be sold in the United States at less than fair value (LTFV).

Background

On September 26, 1989, a petition was filed with the Commission and the

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

[2] Commissioner Newquist did not participate.

INTERNATIONAL TRADE COMMISSION

[Investigation No. 731-TA-451 (Preliminary)]

Gray Portland Cement and Cement Clinker From Mexico

AGENCY: United States International Trade Commission.

ACTION: Institution of a preliminary antidumping investigation and scheduling of a conference to be held in connection with the investigation.

SUMMARY: The Commission hereby gives notice of the institution of preliminary antidumping investigation No. 731-TA-451 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Mexico of gray portland cement and cement clinker, provided for in subheadings 2523.10.00, 2523.29.00, and 2523.90.00 of the Harmonized Tariff Schedule of the United States (previously reported under item 511.14 of the Tariff Schedules of the United States), that are alleged to be sold in the United States at less than fair value. As provided in section 733(a), the Commission must complete preliminary antidumping investigations in 45 days, or in this case by November 13, 1989.

For further information concerning the conduct of this investigation and rules of general application, consult the Commission's Rules of Practice and Procedure, part 207, subparts A and B (19 CFR part 207), as amended by 53 FR 33034 (August 29, 1988) and 54 FR 5220 (February 2, 1989), and part 201, subparts A through E (19 CFR part 201), as amended by 54 FR 13672 (April 5, 1989).

EFFECTIVE DATE: September 27, 1989.

FOR FURTHER INFORMATION CONTACT: Jim McClure (202-252-1191), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-252-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-252-1000.

SUPPLEMENTARY INFORMATION:

Background

This investigation is being instituted in response to a petition filed on September 28, 1989 by Ad Hoc Committee of AZ-NM-TX-FL Producers of Gray Portland Cement of Washington, DC.

Participation in the Investigation

Persons wishing to participate in this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than seven (7) days after publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

Public Service List

Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance. In accordance with §§ 201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), as amended by 53 FR 33030 (August 29, 1988) and 54 FR 5220 (February 2, 1989) each public document filed by a party to the investigation must be served on all other parties to the investigation (as identified by the public service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

Limited Disclosure of Business Proprietary Information Under a Protective Order and Business Proprietary Information Service List

Pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)), as amended by 53 FR 33030 (August 29, 1988) and 54 FR 5220 (February 2, 1989), the Secretary will make available business proprietary information gathered in this preliminary investigation to authorized applicants under a protective order, provided that the application be made not later than seven (7) days after the publication of this notice in the Federal Register. A separate service list will be maintained by the Secretary for those parties authorized to receive business proprietary information under a protective order. The Secretary will not accept any submission by parties containing business proprietary information without a certificate of service indicating that it has been served on all the parties that are authorized to receive such information under a protective order.

Conference

The Director of Operations of the Commission has scheduled a conference in connection with this investigation for 9:30 a.m. on October 17, 1989 at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Parties wishing to participate in the conference should contact Jim McClure (202-252-1191) not later than October 13, 1989 to arrange for their appearance. Parties in support of the imposition of antidumping duties in this investigation and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference.

Written Submissions

Any person may submit to the Commission on or before October 20, 1989 a written brief containing information and arguments pertinent to the subject matter of the investigation, as provided in § 207.15 of the Commission's rules (19 CFR 207.15). A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the rules (19 CFR 201.8). All written submissions except for business proprietary data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any information for which business proprietary treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Business Proprietary Information." Business proprietary submissions and requests for business proprietary treatment must conform with the requirements of § 201.6 and 207.7 of the Commission's rules (19 CFR 201.6 and 207.7), as amended by 54 FR 13672 (April 5, 1989) and 53 FR 33034 (August 29, 1988) and 54 FR 5220 (February 2, 1989).

Parties which obtain disclosure of business proprietary information pursuant to § 207.7(a) of the commission's rules (19 CFR 207.7(a)), as amended by 53 FR 33034 (August 29, 1988) and 54 FR 5220 (February 2, 1989), may comment on such information in their written brief, and may also file additional written comments on such information no later than October 23, 1989. Such additional comments must be limited to comments on business

proprietary information received in or after the written briefs.

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.12 of the Commission's rules (19 CFR 207.12).

Issued: September 28, 1989.

By order of the Commission.

Lisbeth K. Godley,

Acting Secretary.

[FR Doc. 89-23280 Filed 9-29-89; 8:45 am]

BILLING CODE 7020-02-M

[A-201-802]

Final Determination of Sales at Less Than Fair Value, Gray Portland Cement and Clinker From Mexico

AGENCY: Import Administration, International Trade Administration, Commerce.

ACTION: Notice.

SUMMARY: We determine that imports of gray portland cement and clinker from Mexico are being, or are likely to be, sold in the United States at less than fair value. We also determine that critical circumstances do not exist with respect to imports of gray portland cement and clinker from Mexico.

We have notified the U.S. International Trade Commission (ITC) of our determination and have directed the U.S. Customs Service to continue to suspend liquidation of all entries of gray portland cement and clinker from Mexico, as described in the "Continuation of Suspension of Liquidation" section of this notice. The ITC will determine, within 45 days of the publication of this notice, whether these imports materially injure, or threaten material injury to, the U.S. industry.

EFFECTIVE DATE: July 18, 1990.

FOR FURTHER INFORMATION CONTACT: Louis Apple or Brad Hess, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone (202) 377-1769 or 377-3773 respectively.

SUPPLEMENTARY INFORMATION:

Final Determination

We determine that imports of gray portland cement and clinker from Mexico are being, or are likely to be, sold in the United States at less than fair value, as provided in section 735 of the Tariff Act of 1930, as amended (19 U.S.C. 1673d(a)) (the Act). The estimated weighted-average margins are shown in the "Continuation of Suspension of Liquidation" section of this notice.

Case History

Since publication of the preliminary determination (55 FR 13617, April 12, 1990), the following events have occurred. On April 9, 1990, respondent CEMEX, S.A. (CEMEX) requested that we postpone making our final determination for a period of 21 days pursuant to section 735(a)(2)(A) of the Act. On April 20, 1990, we published a notice postponing the final determination until July 10, 1990 (55 FR 14989).

On April 19, 1990, petitioner alleged that critical circumstances exist. On May 25, 1990, we published a preliminary finding that critical circumstances do not exist (55 FR 21639).

We verified the questionnaire responses in Mexico from April 23 to May 4, 1990, and in Phoenix, Arizona and Buda, Texas from May 21 to May 22, 1990.

On June 8, 1990, petitioner and respondents CEMEX and Apasco, S.A. de C.V. (Apasco) withdrew their requests for a hearing.

Petitioner and respondents CEMEX and Apasco submitted comments for the record in case briefs dated June 13, 1990, and in rebuttal briefs dated June 19, 1990.

Scope of Investigation

The United States has developed a system of tariff classification based on the international harmonized system of customs nomenclature. On January 1, 1989, the U.S. tariff schedules were fully converted to the Harmonized Tariff Schedule (HTS), as provided for in section 1201 *et seq.* of the Omnibus Trade and Competitiveness Act of 1988. All merchandise entered or withdrawn from warehouse for consumption on or after this date is now classified solely according to the appropriate HTS subheadings. The HTS subheadings are provided for convenience and U.S. Customs Service purposes. The written description remains dispositive.

The products covered by this investigation include gray portland cement and clinker. Gray portland cement is a hydraulic cement and the primary component of concrete. Clinker, an intermediate material produced when manufacturing cement, has no use other than that of being ground into finished cement.

Gray portland cement is currently classifiable under HTS item number 2523.29, and cement clinker is currently classifiable under HTS item number 2523.10. Gray portland cement has also been entered under HTS item number 2523.90 as "other hydraulic cements".

Period of Investigation

The period of investigation (POI) is April 1, 1989 through September 30, 1989.

Such or Similar Comparisons

Pursuant to section 771(16)(C) of the Act, we established two categories of "such or similar" merchandise: gray portland cement and clinker.

Product comparisons were made on the basis of standards established by the American Society for Testing Materials (ASTM standards). All of the cement sold during the POI falls within the following three ASTM standards: Type I, Type II, and Type V cement. We compared U.S. sales of bagged cement to home market sales of bagged cement, and we compared U.S. sales of bulk cement to home market sales of bulk cement.

CEMEX and Cementos Hidalgo had no sales of clinker in the United States during the POI. Apasco sold clinker to the United States during the POI, but did not sell clinker in either the home or third country markets. Because of the small volumes involved, we did not use sales of clinker in our analysis.

For cement, all respondents sold identical merchandise (*i.e.*, types of cement) in the home market with which to compare merchandise sold in the United States.

In order to determine whether there were sufficient sales of gray portland cement in the home market to serve as the basis for calculating foreign market value (FMV), we compared the volume of home market sales of cement to the volume of third country sales of cement, in accordance with section 773(a)(1) of the Act. All respondents had sufficient home market sales.

Fair Value Comparisons

To determine whether sales of gray portland cement and clinker from Mexico to the United States were made at less than fair value, we compared the U.S. price to the FMV, as specified in the "United States Price" and "Foreign Market Value" sections of this notice.

United States Price

For CEMEX, we based U.S. price on purchase price where sales were made directly to unrelated parties prior to importation into the United States, in accordance with section 772(b) of the Act. Where sales to the first unrelated purchaser took place after importation into the United States, we based U.S. price on exporter's sales price (ESP), in accordance with section 772(c) of the Act. For Apasco and Cementos Hidalgo, we based U.S. price on purchase price, because all sales were made directly to unrelated parties prior to importation into the United States.

CEMEX

For CEMEX, we calculated purchase price based on packed, f.o.b. mid-bridge or c.i.f. prices. We made deductions, where appropriate, for discounts and rebates, foreign inland freight, ocean freight, Mexican brokerage, and U.S. brokerage. In accordance with section 772(d)(2)(A) of the Act, we made an additional deduction for U.S. excise taxes and merchandise processing fees. In accordance with section 772(d)(1)(C) of the Act, we added to the U.S. price the amount of value added tax (VAT) that would have been collected on the export sale had it been subject to the tax. We computed the hypothetical amount of the VAT added to the U.S. price by applying the home market VAT rate to a U.S. price net of all charges and expenses incurred as a result of transporting the merchandise outside Mexico.

We calculated ESP based on packed, f.o.b. terminal or c.i.f. prices. We made deductions, where appropriate, for discounts and rebates, foreign inland freight, U.S. inland freight, ocean freight, Mexican brokerage, and U.S. brokerage. In accordance with section 772(d)(2)(A) of the Act, we made an additional deduction for U.S. excise taxes and merchandise processing fees. In accordance with section 772(e)(2) of the Act, we made additional deductions, where appropriate, for credit expenses, packing expenses incurred in the United States, and indirect selling expenses consisting of inventory carrying costs and general indirect selling expenses incurred in Mexico and the United States. We recalculated CEMEX's inventory carrying cost using the Mexican interest rate for the Mexican portion of the calculation. We made additions, where appropriate, for revenue for special delivery charges. In accordance with section 772(d)(1)(C) of the Act, we added to the U.S. price the amount of VAT that would have been collected on the export sale had it been subject to the tax. We computed the hypothetical amount of the VAT added to the U.S. price by applying the home market VAT rate to a U.S. price net of all charges and expenses incurred as a result of transporting the merchandise outside Mexico.

CEMEX reported that some of the cement sold underwent further manufacturing. Because of the small quantity involved, we did not include these sales in our analysis.

Apasco

For Apasco, we calculated purchase price based on the f.o.b. Mexican port price. We made deductions for discounts, foreign inland freight, foreign inland insurance, Mexican brokerage, demurrage, truck loading cost, and ship loading cost. We did not adjust FMV for reported technical service expenses as a direct selling expense, because we could not verify that these expenses were directly related to sales of the subject merchandise. In accordance with section 772(d)(1)(B) and (C) of the Act, we added to the U.S. price the amount of rebated duties and the amount of VAT that would have been collected on the export sale had it been subject to the tax. We computed the hypothetical amount of the VAT added to the U.S. price by applying the home market VAT rate to a U.S. price net of all charges and expenses incurred as a result of transporting the merchandise outside Mexico.

Cementos Hidalgo

For Cementos Hidalgo, we calculated purchase price on the packed, f.o.b. plant or c & f price. We made deductions for ocean and foreign inland freight. In accordance with section 772(d)(1)(C) of the Act, we added to the U.S. price the amount of VAT that would have been collected on the export sale had it been subject to the tax. We computed the hypothetical amount of the VAT added to the U.S. price by applying the home market VAT rate to a U.S. price net of all charges and expenses incurred as a result of transporting the merchandise outside Mexico.

Foreign Market Value

In accordance with section 773(a)(1)(A) of the Act, we calculated FMV based on home market sales.

CEMEX

For CEMEX, we calculated FMV based on packed, f.o.b. ex-factory or c.i.f. prices to unrelated and related customers in the home market. We used the related party sales, because the prices to related parties were at or above the prices to unrelated parties and, therefore, were determined to be at arms-length.

We made deductions, where appropriate, for discounts, rebates, and inland freight. Where appropriate, we added packing revenue and handling revenue. For comparisons of bagged cement, we deducted home market packing costs from the FMV and added to FMV U.S. packing costs incurred in Mexico.

Pursuant to § 353.56 of the regulations (19 CFR 353.56), we made circumstance of sale adjustments, where appropriate, for differences in credit expenses on purchase price sales. For ESP sales, we deducted credit expenses from U.S. price.

We made a circumstance of sale adjustment in accordance with section 773(a)(4)(B) of the Act to eliminate any differences in taxation between the two markets. Because home market prices were net of VAT, this adjustment was

made by adding the hypothetical tax on the U.S. sale to both the U.S. price and the FMV.

For comparisons to ESP sales, we made additional deductions from the FMV for home market indirect selling expenses, which consisted of general indirect selling expenses and inventory carrying costs. We capped the amount deducted for indirect selling expenses incurred in the home market by the amount of indirect selling expenses incurred on sales in the U.S. market, in accordance with § 353.56(b)(2) of our regulations (19 CFR 353.56).

Apasco

For Apasco, we calculated FMV based on f.o.b. plant, pickup point or customer facility prices to unrelated customers in the home market.

We made deductions, where appropriate, for discounts, inland freight, inland insurance, and loading costs. Because all U.S. sales were sales of bulk cement, we used only sales of bulk cement in the home market for our comparisons. Therefore, no packing charges were deducted.

We made circumstance of sale adjustments, where appropriate, for differences in credit expenses, advertising and after-sale storage facilities pursuant to § 353.56 of the regulations (19 CFR 353.56). We made additions for interest revenue for early payments made on certain sales. We did not allow reported technical service expenses as a direct selling expense, because we could not verify that this expense was directly related to sales of the subject merchandise.

We made a circumstance of sale adjustment in accordance with section 773(a)(4)(B) of the Act to eliminate any differences in taxation between the two markets. Because home market prices were net of VAT, this adjustment was made by adding the hypothetical tax on the U.S. sale to both the U.S. price and the FMV.

Cementos Hidalgo

For Cementos Hidalgo, we calculated FMV based on packed, f.o.b. plant or c & f prices to unrelated customers in the home market.

We made deductions, where appropriate, for discounts and inland freight. For comparisons of bagged cement, we deducted home market packing costs from the FMV and added to FMV U.S. packing costs.

Where appropriate, we made circumstance of sale adjustments for differences in credit expenses and bank fees pursuant to section 353.56 of the regulations (19 CFR 353.56). Since Cementos Hidalgo did not report the bank fees, we resorted to best information available and used the highest verified bank fee on U.S. sales. We also recalculated the U.S. credit expense using the actual credit days on the sales verified. Since the credit days were under-reported on all verified sales, we have used the average credit day period of the verified U.S. sales as best information available in our calculation of credit expense on all other U.S. sales.

We made a circumstance of sale adjustment in accordance with section 773(a)(4)(B) of the Act to eliminate any differences in taxation between the two markets. Because home market prices included VAT, this adjustment was made by subtracting VAT from home market prices then adding the hypothetical tax on the U.S. sale to both the U.S. price and the FMV.

Currency Conversion

When calculating FMV, we typically make currency conversions in accordance with § 353.60 of our regulations (19 CFR 353.60), using the exchange rates certified by the Federal Reserve Bank of New York. Since the Federal Reserve Bank of New York did not provide any exchange rate information for Mexico during the period of this investigation, we used the average monthly exchange rates for Mexico published by the International Monetary Fund as a reasonable surrogate for the Federal Reserve exchange rates.

Critical Circumstances

Petitioner alleges that "critical circumstances" exist with respect to imports of gray portland cement and clinker from Mexico. Section 733(e)(1) of the Act provides that critical circumstances exist when we determine that there is a reasonable basis to believe or suspect the following:

(1) That there is a history of dumping of the same class or kind of merchandise, or that the person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the merchandise at less than fair market value, and

(2) That there have been massive imports of the subject merchandise over a relatively short period.

To determine whether imports have been massive over a relatively short period, we based our analysis on respondents' shipment data for equal periods immediately preceding and following the filing of the petition.

Pursuant to § 353.16 (f) and (g) of our regulations, we examined the period beginning in the month following the month in which the petition was filed and ending in the month in which we published our preliminary determination. Because the petition was filed near the end of the month of September, we selected the following month as the beginning of the base period.

We then compared the quantity of imports during the base period over the imports during the immediately preceding period of comparable duration for each of the respondents. We found that shipments from none of the respondents had increased by at least 15 percent during the base period in accordance with 19 CFR 353.16(f)(2). Based on the above, we find that imports of gray portland cement and clinker from Mexico have not been massive over a relatively short period.

Since we do not find that there have been massive imports, we need not consider whether there is a history of dumping or whether importers of this merchandise knew or should have known that such merchandise was being sold at less than fair value. Therefore, we find that there is no reasonable basis to believe or suspect that critical circumstances exist with respect to imports of gray portland cement and clinker from Mexico.

Verification

As provided in section 776(b) of the Act, we verified all information used in reaching the final determination in this investigation. We used standard verification procedures, including examination of relevant accounting records and original source documents provided by respondents.

Interested Party Comments

Comment 1

Petitioner argues that the Department should treat CEMEX and Cementos de Chihuahua (CDC) as one respondent as was done in the preliminary determination, because the companies are closely intertwined and transactions take place between the companies.

DOC Position

We agree. We determine that CDC and CEMEX do not constitute separate manufacturers or exporters for purposes of the dumping law. The administrative record establishes a close, intertwined relationship between CDC and CEMEX based on their corporate organization and ownership. CDC is predominantly owned by CEMEX, and the companies share common boards of directors. Moreover, CDC and CEMEX have conducted transactions between themselves during the POI. Finally, the

production equipment at both companies consists of the same type of equipment so it would not be necessary to retool either company's facilities to shift production. Therefore, we have treated CDC and CEMEX as one respondent and calculated a single weighted-average margin for CEMEX. See, Final Determination of Sales at Less Than Fair Value: Certain Granite Products from Italy 53 FR 27187, 27189 (1988)

Comment 2

Petitioner argues that the Department should reject the response submitted by Cementos Hidalgo, S.C.L., because it was untimely, incomplete, and inaccurate. Petitioner suggests that, as best information available, the Department should use the "all other" rate.

DOC Position

We do not consider Cementos Hidalgo's response to be untimely. It was submitted in final form on the same day that CEMEX's final response was due. The tape was revised shortly thereafter, but it was submitted before the section B and C deficiency response was due for CEMEX. Although there were some home market sales not reported, these sales accounted for only a small percentage of total home market sales. We have used best information available for these sales. We have also used best information available for the bank commissions which were not reported and for the inaccurate credit days for the U.S. sales.

Comment 3

Petitioner argues that the Department should reject Apasco's voluntary response and use the dumping margin alleged in the petition as best information for the final determination.

Petitioner asserts that voluntary respondents, such as Apasco, must meet a higher standard of accuracy and completeness before their responses are accepted. Petitioner argues that because Apasco failed to report certain sales pursuant to contracts, its response has failed this higher standard. Apasco maintains that its reporting of all sales is complete and that any deficiencies in its submissions have been insignificant.

DOC Position

We disagree with the petitioner. As set forth in Comment 15 and based upon the findings reported in our verification report, we have determined that Apasco's questionnaire response is accurate and complete.

Comment 4

Petitioner argues that the Department should reject all information favorable to CEMEX that was submitted later than one week prior to verification.

DOC Position

We disagree with petitioner. This information merely includes corrections to the database found in preparation for verification. These were minor corrections to factual information already containined in the record of the proceeding.

Comment 5

For Cementos Hidalgo, petitioner argues that the Department should use best information available for unreported U.S. and home market sales. Petitioner suggests the Department use the "all others" margin from the preliminary determination as best information for these sales.

DOC Position

We have used the highest reported home market price as best information available for the unreported home market sales. We did not find any unreported U.S. sales. There was a slight difference in the reported and verified total U.S. quantities, but the amount was so small that it was negligible.

Comment 6

Petitioner argues that the Department should have accepted its allegations and initiated an investigation of sales below the cost of production.

DOC Position

As outlined in our preliminary determination, we rejected petitioner's allegations because, for CEMEX, the allegation was based on one type of cement, sales of which were so few that they would not have been disregarded in our FMV calculations even if we had found all such sales to have been sold below cost. We rejected the allegation regarding Apasco, because the study used as the basis for the allegation did not identify the costs of the specific products manufactured by Apasco that were alleged to be sold below cost.

Comment 7

CEMEX argues that matching products according to how they are sold is contrary to the antidumping statute and prior Department practice. CEMEX maintain that in our investigation of cyanuric acid (see, Final Determiniation of Sales at Less than Fair Value: Cyanuric Acide and its Chlorinated Derivatives from Japan, 46 FR 7424, 7426 (1984)), the Department deemed physically identical mechandise to be comparable even through the merchandise was packaged differently and intended for different customers. Therefore, the Department cannot base its product matches on descriptions of the merchandise as sold. Furthermore, CEMEX argues that Mexican customers are generally indifferent to whether cement is marketed as Type I or Type II cement, and that matching cement by the way it is marketed and invoiced can achieve absurd results, such as placing the same product in more than one identical matching category.

However the comparisons are made, CEMEX maintains that matching within ranges and standards accepted by the industry as set forth by ASTM is necessary, because it is the only reasonable way to make a comparison of goods when the chemical composition of those goods necessarily varies. With industry standards as the basis for identical matches, CEMEX argues that there can be no adjustments for differences in merchandise in this case.

Petitioner argues that the Department should match merchandise based on the way it is invoiced. Petitioner maintains that the Cyanuric Acid case cited by CEMEX does not support CEMEX's contention that product matches must be based on phyical characteristics, because in Cyanuric Acid there was no contention that the products were mislabelled on home market invoices, or that the products were within more than one industry-recognized specification. Furthermore, citing overall higher invoiced prices for Type II cement in the home market, petitioner contends that the Mexican consumers perceive a very real difference between cement types. Finally, petitioner submits that CEMEX cannot argue that ASTM standards for cement govern identical merchandise issues if it also claims that cement that meets more than one ASTM specification cannot be compared as identical merchandise in either of two appropriate ASTM categories.

DOC Position

We disagree with CEMEX. For merchandise comparisons, section 771(16)(A) of the Act states a clear preference for merchandise which is identical in physical characteristics to the merchandise sold in the United States. Throughout this investigation, both petitioner and CEMEX have noted that customers and producers in both markets rely on ASTM standards to differentiate between products. Furthermore, we note that the Mexican standards and the ASTM standards used in the United States are practically the same. Therefore, we have

considered that if a product is sold as merchandise meeting a certain ASTM standard, and in fact the product meets that ASTM standard, it is identical in physical characteristics to the merchandise sold in Mexico which meets, and is sold as meeting, the same standards.

We have used the invoice to determine the proper ASTM standard, because we verified that the product listed on the invoice met the ASTM standard indicated on the invoice. For example, cement invoiced as Type I cement met the Type I standard, even through it may have also met the Type II standard. We acknowledge that at verification we noted one instance where Type II cement was mistakenly invoiced as Type I cement. However, as the verification report also reveals, this was a mistake and is not the ordinary practice in the industry. Because producers label and sell cement, and customers buy cement based on these standards, we have determined that matching by ASTM standard as invoiced is the most reasonable basis for making equitable identical merchanidse comparison.

Comment 8

Petitioner claims that the Department should make an adjustment for differences in merchandise to account for the extra expense incurred by one CEMEX company for grinding cement. CEMEX argues that since the Department has determined that identical products exist, there is no need for difference in merchandise adjustments.

DOC Position

CEMEX's verified production records confirm that cement ground to slightly different levels of fineness may still meet the same ASTM standards and be sold as identical merchandise. Therefore, and for reasons explained in Comment 7, we have determined that all merchandise within a particular ASTM standard can be compared as identical without adjustments for differences in merchandise.

Comment 9

CEMEX argues that the Department's failure to compare sales at the same level of trade in its preliminary determination is contrary to the antidumping statute and to the Department's regulations and practice. Petitioner contends that CEMEX's request regarding level of trade is untimely and thereby prevented proper verification. Furthermore, petitioner claims that in its preliminary determination the Department calculated FMV and U.S. price based on sales at the same level of trade.

DOC Position

For our final determination, we determined that CEMEX had sufficient sales in the home market at the same commercial level of trade as its U.S. sales to permit an adequate comparison to all U.S. sales.

However, information concerning levels of trade submitted by Apasco and Cementos Hidalgo was not complete enough for us to determine the appropriate levels of trade for Apasco's and Cementos Hidalgo's merchandise comparisons. Therefore, we assumed that all home market sales of the physically identical merchandise were at the same level of trade.

Comment 10

Petitioner argues that CEMEX's shipments to the U.S. that were made during the POI pursuant to long-term Contract 1 should be included in the calculation of the U.S. price, because the material terms of the contract were not fixed until the date of shipment. Petitioner argues, among other things, that there was no definite price term.

CEMEX explains that it made sales to two regions in the United States pursuant to Contract 1 during the POI. CEMEX argues that the price and quantity terms for sales made to both regions were fixed in an oral agreement and a letter that preceded the POI. CEMEX argues that the price term was fixed because there was nothing further to negotiate after the oral agreement. Specifically, CEMEX argues that the formula used to calculate the price for sales to Region 2 establishes a definite price term in accordance with Department precedent. CEMEX also argues that the quantity term was fixed, because the contract required CEMEX to supply all of its customer's annual requirements.

DOC Position

We disagree with CEMEX in part. In accordance with section 776 of the Act (19 U.S.C. 1677e), which requires the Department to verify all information used in making a final determination, we usually cannot rely upon oral agreements standing alone to establish the date of sale (*see*, Final Determination of Sales at Less than Fair Value: Certain Forged Steel Crankshafts from the Federal Republic of Germany, 52 FR 28,170 (1987)). Although we usually consider the date when the parties execute a long-term contract that establishes definite price and quantity terms as the date of sale (*see*, Final Determination of Sales at Less Than Fair Value: Fall-Harvested Round White Potatoes from Canada, 48 FR 51,669 (1983)), CEMEX presented no evidence during the investigation that established when the parties actually had signed long-term Contract 1. The Uniform Commercial Code, however, recognize the existence of a contract when the parties have begun performance pursuant to written instruments, such as letters, memoranda, company correspondences, and the like (see also, Certain Forged Steel Crankshafts from the Federal Republic of Germany, *supra*).

In this case, we verified for sales to Region 1 that the parties had begun performance pursuant to a letter agreement, dated before the POI, that establishes definite price and quantity terms. Because we determine under these circumstances that the parties had established definite price and quantity terms for sales to Region 1 before the POI, we determine that the date of sale for these shipments precedes the POI. Accordingly, we have not included in our calculations shipments made to Region 1.

For sales to Region 2, however, we verified that the parties did not establish a definite price term before the POI, because a formula contained in the letter agreement noted above required one of the parties to enter into subsequent negotiations to establish the final selling price. Although CEMEX relinquished control over the final selling price after the sale of the subject merchandise to its customer, CEMEX's customer still maintained control over that price through negotiations with its own customers. Because the price term appearing in the letter agreement noted above is not established until CEMEX's customer concludes negotiations with its customers, that term is indefinite and, therefore, not sufficient to establish the date of sale. We consider the date of shipment to be the date of sale under these circumstances and have included in our calculations all shipments that CEMEX made to Region 2 during the POI.

We also disagree with CEMEX's argument that the contract formula used to calculate price for sales to Region 2 establishes a definite price term in accordance with our administrative precedent. In contrast to formulas found to establish a definite price term, CEMEX's formula is not pegged to some external event that would make unnecessary further negotiations by either party to the contract. *See*, Final Determination of Sales at Less than Fair Value: Brass Sheet and Strip from France, 52 FR 812 (1987) (publicly quoted

price list): *Vass International Corp., v. United States*, 626 F. 2d 1328 (CCPA 1980) (peg to world market prices); *Final Determination of Sales at Less Than Fair Value: Frozen Concentrated Orange Juice from Brazil*, 52 FR 8324 (1989) (peg to commodity prices).

Comment 11

Petitioner argues that CEMEX's shipments to the U.S. that were made during the POI pursuant to Contract 2 should be included in the calculation of U.S. price. Petitioner argues that although Contract 2 is a minimum quantity contract, and CEMEX agrees that all shipments made during the POI in excess of the minimum quantity should be reported, there is no indication when the minimum quantity was met. Therefore, all shipments made during the POI should be included in the calculation of U.S. price.

CEMEX argues that the Department verified the CEMEX had supplied its customer with the quantity stipulated in the purchase agreement. Therefore, only shipments made during the POI that exceed the minimum amount stated in Contract 2 should be included in the calculation of U.S. price.

DOC Position

Where a minimum quantity contract is involved, we consider the date when the parties executed (*i.e.* signed) the contract to be the date of sale for those sales made up to the minimum quantity. *See*, Titanium Sponge from Japan; Final Determination of Antidumping Duty Administrative Review and Tentative Determination to Revoke in Part, 54 FR 13,403 (1989). For sales made in excess of the minimum quantity, we consider the date of purchase order or the date of shipment to be the date of sale (*Id.*). The rationale underlying this different treatment is that neither the seller not the buyer knows at the time of contract formation the actual quantity to be supplied or purchased above the minimum quantity requirement (*Id.*).

In this case, we verified that although there was no evidence that specified the date when the parties had signed the written purchase agreement, which establishes definite price and minimum quantity terms, the parties had begun performance pursuant to this agreement before the POI. We also verified that the parties had adhered to the minimum quantity term contained in this purchase agreement. We consider the price and the minimum quantity terms to have been establishment before the POI under these circumstances. As a result, we determine that the date of sale for shipments made up to the minimum quantity specified in the written purchase agreement precedes the POI. Accordingly, we have not included such sales in our calculations. However, we have included in our calculations shipments made in excess of the minimum quantity.

Comment 12

Petitioner argues that all shipments to the U.S. made pursuant to Contracts 3 and 4 should be included in the calculation of U.S. price, even those shipments made after the POI. Petitioner argues that the date of sale for these contracts falls within the POI and, thus, all shipments made pursuant to these contracts should be used in the calculation of U.S. price. Alternatively, petitioner argues that there was never a binding commitment, as shown by the fact that the guaranteed quantities were not adhered to and, thus, the date of sale could be considered to be the date of shipment. In this case, only those shipments made during the POI pursuant to these contracts should be included in the calculation of U.S. price.

CEMEX argues that the date of sale for shipments made pursuant to Contract 3 during the period April 1, 1989 — June 30, 1989, fall outside the POI, because the price and quantity terms for such shipments were reached in an oral agreement that occurred before the POI. CEMEX agrees that shipments from July 1 through December 31, 1989, should be included in the calculation of U.S. price, because the date when the price was established for these shipments fell within the POI. CEMEX further argues that the fact that the minimum quantity was not reached is irrelevant, because there was clear intent by the parties to adhere to the minimum quantities.

For Contract 4, CEMEX argues that the price terms were agreed to on a date that precedes the POI. CEMEX also argues that the quantity terms were agreed to during the prior year.

DOC Position

We agree with CEMEX's position regarding Contract 3. We verified that the parties had begun performance pursuant to a letter agreement, dated before the POI, that established definite price and minimum quantity terms. Although it is unclear when the parties signed this letter agreement, we consider the price and minimum quantity terms, as set forth in this agreement, to have been established before the POI, because the parties had begun performance pursuant to this agreement before the POI. Furthermore, that the parties did not adhere to the minimum quantity terms during performance of the contract does not invalidate their intent to establish definite quantity terms as set forth in the letter agreement. As a result, we consider the date of sale for shipments made up to the minimum quantity during the period April 1, 1989 through June 30, 1989, to precede the POI. We, therefore, have not included these sales in our calculations.

We disagree with CEMEX's position regarding Contract 4. CEMEX explained at verification that the parties were adhering to the price and quantity terms of a 1988 purchase agreement during the period July 1, 1989 through March 31, 1989. On April 1, 1989, the parties began performance pursuant to a written amendment to the 1988 purchase agreement that establishes new price and quantity terms. Because the parties established definite price and quantity terms pursuant to this amendment during the POI, we consider the date of sale for Contract 4 to fall within the POI. Accordingly, we have included in our calculations all shipments made pursuant to this contract.

Comment 13

Petitioner argues that sales pursuant to CDC Contract 1 should be included in our calculations because the minimum quantity was not met. Petitioner argues that sales made pursuant to CDC's long-term Contract 2 should be included in the POI because there was no definite price term established by a memorandum dated prior to the POI. CEMEX argues that this memorandum did, in fact, establish a definite price term and, thus, only those shipments above the minimum quantity stated in the contract should be included in the POI.

DOC Position

We agree with CEMEX. We verified that the parties had formally executed Contract 1 before the POI. We have not included sales pursuant to Contract 1 in our calculations because we have determined that the parties established definite price and quantity terms before the POI. Furthermore, that the parties did not adhere to the quantity terms during performance of the contract does not void their intent to establish definite quantity terms at the time of contract formation (*see*, Comment 12).

For Contract 2, we verified that the memorandum dated prior to the POI establishes a definite price term and simply extended a long-term contract executed by the parties well before the POI. As a result, we consider the date of sale for shipments made pursuant to CDC's Contract 2 to precede the POI.

Accordingly, we have not included such sales in our calculations.

Comment 14

CEMEX contends that because a contract with one of Tolteca's customers was executed prior to the POI, sales pursuant to this contract should not be considered in the Department's final determination.

DOC Position

We agree with CEMEX. We verified that the parties had established definite price and quantity terms prior to the POI pursuant to this contract. As a result, we have not included in our calculations sales made pursuant to this contract.

Comment 15

Petitioner contends that since Apasco cannot establish the exact date when Contract 1 was executed (*i.e.*, signed), the Department should use best information available to determine the U.S. price for Apasco's shipments after the POI. Apasco argues that its methodology for determining the date of sale is in accordance with the Department's original questionnaire.

DOC Position

We agree with Apasco. Although the purchase agreement for Contract 1 failed to specify the date when the parties had formally executed (*i.e.*, signed) the contract, we verified that the parties had begun performance pursuant to this purchase agreement, which establishes definite price and quantity terms, before the POI. As a result, we consider the date of sale of Contract 1 to precede the POI and have excluded from our calculations shipments made pursuant to that contract.

Comment 16

Petitioner claims that the U.S. price for sales to the United States pursuant to the long term contracts differs from that reflected on the source documents. CEMEX argues that the gross unit prices reported are correct and that petitioner is confused by a line labeled "exfactory price" on the source documents.

DOC Position

We verified that the amounts reported were correct, and thus no changes to the reported U.S. prices were made in our final calculations of fair market value.

Comment 17

Petitioner argues that since there were two VAT rates applicable in Mexico during the POI, the Department should use the 6 percent rate which was applicable for sales in border zones. Petitioner argues that for overland shipments to the United States, the 6 percent border zone VAT rate should apply because the export sale would have incurred a 6 percent VAT had it been sold in the border zone before crossing the border. CEMEX argues that the 15 percent VAT rate should be used in calculating VAT on export sales since this is the rate used in virtually all areas of Mexico.

DOC Position

The adjustment for VAT is intended to reflect the tax on home market sales. We found that the 15 percent rate applies to almost all of the home market destinations, and the vast majority of CEMEX's home market sales incurred VAT at the 15 percent rate. Therefore, we have determined that the 15 percent rate is the rate which most closely represents the actual VAT experience in the home market.

Comment 18

Petitioner notes that VAT was improperly double counted on CDC's computer tape.

DOC Position

We agree. CEMEX submitted a new computer tape that contains the verified amounts for CDC's VAT. We have used this revised tape for our final determination.

Comment 19

Petitioner claims that Apasco's claim for duty drawback on refractory bricks and grinding balls should be denied, because these products are not inputs in the subject merchandise. Furthermore, petitioner argues that the replacement of the bricks and balls represents a capital expense which cannot be apportioned by a simple formula.

Apasco maintains that ground clinker obviously contains portions of refractory bricks and grinding balls. Apasco also states that the Department has verified that it received duty drawback.

DOC Position

We agree with Apasco. We verified that Mexican import duties paid by Apasco for refractory bricks and grinding balls used in producing cement were rebated by reason of exportation of the subject merchandise. Therefore, we have allowed Apasco's claim for duty drawback.

Comment 20

Petitioner contends that countervailing duty cash deposits paid or reimbursed by Apasco should be deducted from U.S. price. Apasco points out that the Act provides only that U.S. price be increased by the amount of countervailing duties imposed on the merchandise. Therefore, because no duty has been imposed, Apasco argues that actual duties can be only added to U.S. price once the final duty amount is established.

DOD Position

We agree with Apasco. Section 772(d)(1)(D) of the Act authorizes the Department to make an addition to U.S. price for any countervailing duties imposed (i.e., assessed) on the subject merchandise (19 U.S.C. 1677a(d)(1)(D); *Serampore Industries Pvt., Ltd.* v. *United States*, 675 F. Supp. 1354 (1987)). In this case, the subject merchandise will not be subject to the imposition of simultaneous countervailing duties and antidumping duties until the Department completes any future administrative reviews. Therefore, no adjustment to U.S. price is warranted at this time.

In accordance with Article VI.5 of the General Agreement on Tariffs and Trade, however, it is the Department's consistent practice to deduct the amount of the export subsidy from the dumping deposit when final countervailing duty and antidumping orders are in effect (see, Final Determination of Sales at Less Than Fair Value: Antifriction Bearings (Other Than Tapered Roller Bearings) and Parts Thereof from the Federal Republic of Germany, 54 FR 18992, 19092 (1984). Therefore, if the Department publishes an antidumping duty order in this case, the Department will instruct the U.S. Customs Service to reduce the dumping deposit by the countervailing duty deposit attributable to the export subsidy found in the most recent countervailing duty administrative review covering the subject merchandise (see, Final Results of Countervailing Duty Administrative Review: Portland Hydraulic Cement and Cement Clinker from Mexico, 53 FR 18325 (1988)).

Comment 21

Petitioner argues that CEMEX's home market sales to related parties should be included in the calculation of FMV if they are at prices equal to or greater than the prices charged to unrelated customers.

DOC Position

We agree. In accordance with 19 CFR 353.45(a), we have included home market sales to related parties because they were at or above the prices charged to unrelated customers.

Comment 22

Petitioner argues that for CEMEX and Apasco the Department should follow

its practice of disallowing discounts and rebates to related home market purchasers. CEMEX argues that if the Department includes sales to related parties in its calculation of FMV, it should also include discounts and rebates to related customers as well.

DOC Position

We agree with CEMEX. In determining whether to use related party transactions in the home market for fair value comparisons we compared the prices to related parties, net of all rebates and discounts, to the prices to unrelated parties, net of all discounts and rebates. For CEMEX, we determined that such net prices to related parties are at, or greater than, the net prices to unrelated parties. Therefore, in our calculations to determine foreign market value for CEMEX, we have likewise deducted all discounts and rebates from the prices to both related and unrelated parties.

For Apasco, we determined that such net prices to related parties are less than the net prices to unrelated parties. Therefore, we have not included sales to related parties in our calculations to determine foreign market value for Apasco.

Comment 23

Petitioner argues that CEMEX's ESP sales must be reduced by the increased amount of discounts and rebates found at verification. CEMEX claims that the discounts and rebates were reported accurately. There was a slight difference between the reported amounts and the company records, but CEMEX claims that the difference was due to quantity adjustments and to discounts and rebates for products not used in the calculation of U.S. price.

DOC Position

We agree CEMEX. The difference found was negligible, and thus we have made no additional adjustments.

Comment 24

Petitioner argues that the Department should not allow any deductions for discounts and rebates for CEMEX's home market sales where the customers purchase pozzolanic cement as well as Types I and II cement, because CEMEX has not reported sales of pozzolanic cement and has not explained how the discounts and rebates have been allocated. CEMEX claims that the allocation method, which was verified by the Department, was accurate.

DOC Position

We agree with CEMEX. We verified that the allocation method was accurate and, thus, have allowed the claimed adjustment.

Comment 25

Apasco claimed that a commission was paid to a related party on U.S. sales. Petitioner claims that the Department should deduct this commission. Apasco argues that it has established that the commissionaire is related to Apasco and that the commission therefore represents simply an intracorporate transfer.

DOC Position

We verified Apasco's submission regarding corporate structure, including the relationship of the commissionaire. We are not deducting the related party commission from U.S. price, because we consider it to be an intracorporate transfer. Likewise, in none of the sales used to establish FMV did we make an allowance for commissions paid to related parties.

Comment 26

Petitioner argues that the Department should deduct all movement charges from U.S. price, as well as brokerage and handling fees for all U.S. sales by CDC. Petitioner also argues that the Department must recalculate U.S. packing costs for BCW, one of CEMEX's U.S. affiliates, so that such costs represent the packing costs as verified by the Department.

DOC Position

We agree with petitioner and have deducted all movement charges, as well, as brokerage and handling fees, for all U.S. sales by CDC. We have used the revised packing costs submitted by CEMEX in our calculations, because these packing costs represent the amounts we verified.

Comment 27

Petitioner notes that the law makes no provision for deducting foreign inland freight from FMV and that inland freight on certain home market sales by CEMEX and Apasco was incurred prior to the date of sales. Therefore, petitioner asserts that home market inland freight that appears to be incurred before the date of sale should not be deducted from the FMV.

CEMEX and Apasco argues that, consistent with two court cases (*see, AOC International, Inc., et al.* v. *United States*, Slip Op. 89–127 (CIT, September 18, 1989) and *Smith-Corona Group, SCM Corp.* v. *U.S.*, 713, F.2d 1568, 1572 (CAFC, 1983)), inland freight charges should be deducted from both U.S. price and FMV because it is the only way to make an "apples-to-apples" comparison.

DOC Position

We agree with CEMEX and Apasco. We have deducted from the U.S. price inland freight which represents movement expenses from the plant to the storage facility. Therefore, to ensure an "apples-to-apples" comparison, we have deducted movement expenses from the plant to the storage pick-up point on home market sales in our determination of FMV.

Comment 28

Petitioner contends that inland freight charges billed by a related freight company should be allowed only if they represent arms-lenght transactions. Apasco maintains that the rates charged Apasco by the related freight company were compared with those of an unrelated supplier and deemed to be at arm's length.

DOC Position

We agree with Apasco. We have verified that the freight price charged Apasco by the related company is at least as much as that charged by unrelated suppliers and, therefore, was at arm's length. As a result, we have used the related party freight charges.

Comment 29

Petitioner claims that, as best information, the Department should recalculate Apasco's claim for insurance to account for the expected rebate of a portion of the premiums paid during the POI. Apasco argues that the Department has verified information concerning insurance and, therefore, need not use best information available.

DOC Position

As noted in the verification report, Apasco was unable to document rebate of insurance premiums. Furthermore, the effect of adjusting for the expected rebate would be negligible. Therefore, we have made no adjustments to Apasco's claim for insurance.

Comment 30

Petitioner maintains that CEMEX's credit expense on ESP sales should be based on the home market interest rate because CEMEX's U.S. subsidiaries did not borrow money in the U.S. Petitioner further argues that since CEMEX had both peso- and dollar-denominated debt, credit expense for purchase price sales should be calculated based on either CEMEX's interest rate for peso-denominated debt or the average of CEMEX's peso and dollar interest rates.

CEMEX argues that the peso interest rate reflects a factor to compensate for inflation in Mexico and that this factor

is irrelevant to the opportunity cost of holding accounts receivable on dollar-denominated sales. Therefore, the dollar interest rate paid by CEMEX should apply to its dollars-denominated sales.

DOC Position

We disagree with petitioner. In order to calculated credit costs, we seek to determine a respondent's actual borrowing experience. Because CEMEX received U.S. dollar-denominated loans during the POI, we used CEMEX's dollar-denominated interest rate to calculate credit costs for CEMEX's purchase price and ESP sales. This position is consistent with our long-standing administrative practice. See, Porcelain-on-Steel Cooking Ware from Mexico; Final Results of Antidumping Duty Administrative Review 55 FR 21081 (1990).

For a small number of purchase price sales, CEMEX received partial, rather than full, payment. Petitioner proposes that the Department reduce U.S. price by the highest percentage that the amount received by CEMEX fell short of an invoiced amount. CEMEX states that prior to verification, it notified the Department in writing that these transactions had not been paid and provided the Department with complete and accurate information.

DOC Position

For the transaction where full payment had not been received, we calculated credit expenses using CEMEX's data on the highest average number of days accounts were outstanding for the CEMEX affiliates with purchase price sales. We consider this methodology to be a reasonable representation of credit experience and have used it as best information in our final determination.

Comment 32

Petitioner contends that the basis for calculating U.S. inventory carrying costs should include the total cost for the U.S. affiliate to purchase the cement, in addition to transportation costs incurred to transport the cement to the terminal. Petitioner argues that because CEMEX did not report when the merchandise entered into the inventories of its U.S. affiliates, as best information available, the Department should use the time between the date of production and the date of sale to the first unrelated purchaser to calculate the time that the cement remained in U.S. inventory. Petitioner further claims that since CEMEX's U.S. affiliates do not borrow money in the U.S., and CEMEX has not claimed that it maintains separate accounts for dollar and peso loans, the Department should recalculate CEMEX's inventory carrying costs using the average of CEMEX's peso and dollar interest rates.

CEMEX submits that it has reported the time inventory destined for the U.S. market was held in Mexico and the time it was held in the United States. Finally, CEMEX argues that using a foreign currency denominated rate for the time inventory is owned by a U.S. subsidiary makes sense only when a dollar rate is not available.

DOC Position

We found that CEMEX borrows in both dollars and pesos. Therefore, we have we have adhered to the Department's standard practice which is explained below to calculate the inventory carrying cost. In this case, for the period between production and entry into the United States, we have used the home market weighted average short term interest rate reported by CEMEX. For the period from entry into the United States until sale to the first unrelated party, we have used the verified U.S. interest rate. Based on CEMEX's corporate organization and record keeping, we consider merchandise to enter the inventory of the U.S. subsidiary when it crosses the U.S. border. We used the transfer price reported by CEMEX as the basis for the calculation.

Comment 33

We found at verification that Cementos Hidalgo incurs a bank charge on both home market and U.S. sales for checks issued outside the Monterrey metropolitan area, as well as for exchanging dollars to pesos. Petitioner argues that the Department should deduct the unreported bank charge on U.S. sales but not the unreported bank charge on home market sales. Petitioner argues that we should apply the highest bank fee rate verified to all U.S. sales as best information available.

DOC Position

We agree. As best information available, we have applied the highest verified bank fee rate to all U.S. sales and have not deducted the bank fee from the home market sales because Cementos Hidalgo did not report this fee, and we do not know to which sales the fee would apply.

Comment 34

Petitioner argues that the Department should increase the credit expense on all Cementos Hidalgo's U.S. sales because the reported credit days were inaccurate for all the sales examined during verification. As best information available, petitioner suggests that the Department use the longest period of time verified for all sales. Petitioner also argues that Cementos Hidalgo's home market credit expense should be denied because it did not use actual credit days in its calculation.

DOC Position

We agree that the U.S. credit expense should be increased for all U.S. sales. We found at verification that the number of days for which credit was extended was underreported on all U.S. sales. Therefore, in our calculations, we used the verified number of credit days for the sales which we verified. As best information available, we used the average credit period of the verified sales for the credit calculation of all other U.S. sales. With regard to the home market credit expense, we disagree with petitioner. Use of an average payment period is acceptable if it is not possible, or if it is too complex, to report actual payment days. We have determined in this case that the use of an average payment period on home market sales is acceptable, because it was too complex to report actual payment days due to the number of home market sales.

Comment 35

Petitioner argues that the Department should disallow Apasco's claimed adjustment for costs incurred as a result of maintaining portable silos at the sites of construction company customers. Petitioner claims that silo maintenance, which constituted all of the claim, was not part of the negotiated price with these customers. Furthermore, petitioner claims that Apasco has not shown that maintenance expenses arose from the use of cement sold during the POI. Apasco maintains that the record verified by the Department clearly establishes the link between the maintenance expenses and the sales during the POI.

DOC Position

We have allowed Apasco's claim for post-sale silo maintenance expenses to home market customers since it is an essential term of the sales. Moreover, based on Apasco's records, we find that it would be unreasonable, if not impossible, to precisely tie its maintenance expenses directly to cement sold in the POI. Therefore, we

have accepted Apasco's allocation methodology.

Comment 38

Petitioner argues that Apasco's claim for a circumstance of sale adjustment for technical services should be disallowed because the technical services are not directly related to sales during the POI. In particular, petitioner cites Apasco's claim that home market technical services were for seminars. Citing the court's ruling in *Rhone Poulenc S.S. v. United States*, 592 F. Supp. 1318, 1335 (CIT 1984), petitioner maintains that seminars are generally for promoting good will and future sales and, as such, do not constitute technical services for independent services. Apasco proposes that the Department treat technical services equally in both markets.

DOC Position

We verified that Apasco incurred expenses for seminars which they claimed as a circumstance of sale adjustment for technical services. Since we found no evidence in either market of requests from customers for technical services, and since Apasco was not able to show that the customer visits were made at the request of the customers, we deem the claimed technical service expenses in both markets to have been generally oriented toward promoting good will and future sales, and, as such, are not directly related to the sale of the subject merchandise. Therefore, we are denying Apasco's claimed adjustment for technical services.

Continuation of Suspension of Liquidation

In accordance with section 733(d)(1) of the Act, we are directing the U.S. Customs Service to continue the suspension of liquidation of all entries of gray portland cement and clinker from Mexico as defined in the "Scope of Investigation" section of this notice, that are entered, or withdrawn from warehouse, for consumption on or after April 12, 1990, the date of publication of the preliminary determination in the Federal Register. The U.S. Customs Service shall continue to require a cash deposit or posting of a bond equal to the estimated amounts by which the FMV of the subject merchandise from Mexico exceed the U.S. price, as shown below.

Manufacturer/Producer/Exporter	Margin percentage
CEMEX, S.A.	58.38
Apasco, S.A. de C.V.	53.26
Cementos Hidalgo, S.C.L.	3.69
All others	58.05

If the Department publishes an antidumping duty order covering the subject merchandise, the Department will instruct the U.S. Customs Service to reduce the dumping deposit by the amount of the countervailing duty deposit attributable to the export subsidies found in the most recent countervailing duty administrative review covering the subject merchandise. *See, Portland Hydraulic Cement and Cement Clinker from Mexico, supra.* This suspension of liquidation will remain in effect until further notice.

ITC Notification

In accordance with section 735(d) of the Act, we have notified the ITC of our determination. In addition, pursuant to section 735(c)(1) of the Act, we are making available to the ITC all nonprivileged and nonproprietary information relating to this investigation. We will allow the ITC access to all privileged and business proprietary information in our files, provided the ITC confirms that it will not disclose such information, either publicly or under administrative protective order, without the written consent of the Deputy Assistant Secretary for Investigations, Import Administration.

The ITC will determine within 45 days from the date of this final determination whether there is material injury, or the threat thereof, to the domestic industry. If the ITC determines that material injury, or threat of material injury, does not exist, the proceeding will be terminated and all securities posted as a result of the suspension of liquidation will be refunded or cancelled. However, if the ITC determines that material injury does exist, the Department will issue an antidumping duty order directing Customs officials to assess antidumping duties on gray portland cement and clinker from Mexico entered, or withdrawn from warehouse, for consumption or or after the effective date of the suspension of liquidation, equal to the amount by which the FMV exceeds the U.S. price.

This determination is published pursuant to section 735(d) of the Act (19 U.S.C. 1673d(d)).

Dated: July 10, 1990.

Francis J. Sailer,

Acting Assistant Secretary for Import Administration.

[FR Doc. 90-16693 Filed 7-17-90; 8:45 am]

BILLING CODE 3510-DS-M

APPENDIX B

CALENDAR OF PUBLIC HEARING

CALENDAR OF PUBLIC HEARING

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

Subject	:	GRAY PORTLAND CEMENT AND CEMENT CLINKER FROM MEXICO
Inv. No.	:	731-TA-451 (Final)
Date and Time	:	July 19, 1990 - 9:30 a.m.

Sessions were held in connection with the investigation in the Main Hearing Room 101 of the United States International Trade Commission, 500 E Street, S.W., Washington, D.C.

In Support of the Imposition of Antidumping Duties:

Kilpatrick & Cody
Washington, D.C.
On behalf of

The Ad Hoc Committee of AZ-NM-TX-FL Producers of Gray Portland Cement

Jon R. Thompson, Division Vice President, Cement Marketing, Texas Industries, Incorporated

C.M. Coleman, Vice President and General Manager, Florida Mining and Materials

John N. Stoss, Phoenix, Arizona

James Carmichael, Vice President and Chief Finanical Officer, Phoenix Cement Company

Clarence C. Comer, President and Chief Executive Officer, Southdown, Incorporated

Donald Unmacht, President, National Cement Company of California, Incorporated

Fred D. Ullman, President, Ullman and Associates, Incorporated

Dr. Ken Dunbar, Economists, Inc.

-more-

In Support of the Imposition of Antidumping Duties cont'd:

Andrew R. Wechsler, Senior Vice President, Economists Incorporated

Gerard F. Adams, Professor of Economics and Finance, University of Pennsylvania

Joseph W. Dorn)
Martin M. McNerney)
)--OF COUNSEL
Michael P. Mabile)
Walter E. Spiegel)

In Opposition to the Imposition of Antidumping Duties:

Steptoe & Johnson
Washington, D.C.
On behalf of

Cement Free Trade Association (CFTA)

Richard O. Cunningham)
Robert Fleishman)
Susan G. Esserman)--OF COUNSEL
Jo Anne Swindler)
Mark A. Moran)

Steptoe & Johnson
Washington, D.C.
and
Skadden, Arps, Slate, Meagher & Flom
Washington, D.C. (Co-counsel)
On behalf of

CEMEX, S.A.

Dr. William Finan, Quick, Finan and Associates Incorporated

Jose' Trevino Salinas, Director of International Operations, CEMEX, S.A.

In Opposition to the Imposition
of Antidumping Duties cont'd:

Ronald W. Pharris, C.L. Pharris Ready Mix

Richard O. Cunningham)
Robert Fleishman)--OF COUNSEL
Susan G. Esserman)

O'Connor and Hannan
Washington, D.C.
On behalf of

Apasco, S.A. de C.V.

Lic. Luis Martinez Arguello, Corporate Director of Apasco

Andrew Jaxa-Debicki)
)--OF COUNSEL
Joseph Blatchford)

-end-

APPENDIX C

TRADE AND FINANCIAL DATA FOR FLORIDA, THE SOUTHWEST, SOUTHERN CALIFORNIA AND CALIFORNIA, 1986-89, JANUARY-MARCH 1989 AND JANUARY-MARCH 1990

Table C-1
Portland cement and cement clinker: U.S. capacity, production, and capacity utilization, by product and by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Production (1,000 short tons)					
Southern California region:						
Portland cement from--						
Firms' cement clinker....	***	***	***	***	***	***
Imported cement clinker..	***	***	***	***	***	***
Purchased cement clinker.....	***	***	***	***	***	***
Total.....	5,463	5,204	5,760	6,189	1,334	1,325
Cement clinker.....	5,757	5,698	5,716	6,065	1,401	1,459
California region:						
Portland cement from--						
Firms' cement clinker....	***	***	***	***	***	***
Imported cement clinker..	***	***	***	***	***	***
Purchased cement clinker.....	***	***	***	***	***	***
Total.....	8,193	8,034	8,755	9,344	1,948	1,975
Cement clinker.....	8,391	8,492	8,501	9,126	2,088	2,083
Florida region:						
Portland cement from--						
Firms' cement clinker....	***	***	***	***	***	***
Imported cement clinker..	***	***	***	***	***	***
Purchased cement clinker.....	***	***	***	***	***	***
Total.....	3,146	3,394	3,367	3,611	909	854
Cement clinker.....	2,233	2,591	2,751	2,981	744	760
Southwest region:						
Portland cement from--						
Firms' cement clinker....	***	***	***	***	***	***
Imported cement clinker..	***	***	***	***	***	***
Purchased cement clinker.....	***	***	***	***	***	***
Total.....	9,455	8,846	8,741	8,870	1,743	1,981
Cement clinker.....	8,849	8,485	8,562	8,667	1,953	1,921

Continued on next page.

Table C-1--Continued
Portland cement and cement clinker: U.S. capacity, production, and capacity utilization, by product and by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	End-of-period capacity (1,000 short tons)					
Southern California region:						
Portland cement	7,338	7,419	7,122	7,202	1,744	1,758
Cement clinker	6,756	6,777	5,735	6,034	1,419	1,454
California region:						
Portland cement	10,413	10,514	10,247	10,372	2,518	2,532
Cement clinker	9,762	9,802	8,788	9,132	2,159	2,194
Florida region:						
Portland cement	4,570	4,532	4,099	4,123	1,028	1,026
Cement clinker	2,901	3,036	2,906	3,004	741	750
Southwest region:						
Portland cement	13,633	14,337	14,118	13,823	3,458	3,458
Cement clinker	10,499	10,878	10,489	10,542	2,630	2,641
	Capacity utilization (percent)					
Southern California region:						
Portland cement	74.4	70.1	80.9	85.9	76.5	75.4
Cement clinker	85.2	84.1	99.7	100.5	98.7	100.3
California region:						
Portland cement	78.7	76.4	85.4	90.1	77.4	78.0
Cement clinker	86.0	86.6	96.7	99.9	96.7	94.9
Florida region:						
Portland cement	68.8	74.9	82.1	87.6	88.4	83.2
Cement clinker	95.6	85.3	94.7	99.2	100.4	101.3
Southwest region:						
Portland cement	66.1	60.8	61.9	64.2	50.4	57.3
Cement clinker	81.3	79.2	81.3	82.1	73.7	72.7

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table C-2
Portland cement: Shipments of U.S. producers, by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
Southern California region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	5,008	4,679	5,285	5,452	1,298	1,259
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	468	451	526	654	156	111
Total	5,476	5,130	5,811	6,106	1,454	1,370
California region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	7,643	7,436	8,356	8,622	1,941	1,917
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	582	460	537	662	158	113
Total	8,225	7,896	8,893	9,284	2,099	2,030
Florida region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	3,093	3,303	3,262	3,443	887	848
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	81	93	123	122	28	10
Total	3,174	3,396	3,385	3,565	915	858
Southwest region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	9,443	8,640	8,418	8,519	1,724	1,986
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	71	157	322	407	67	57
Total	9,514	8,797	8,740	8,926	1,791	2,043

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Table C-2--Continued
Portland cement: Shipments of U.S. producers, by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Value (1,000 dollars)					
Southern California region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	311,536	281,352	289,130	301,411	71,231	70,644
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	27,605	25,035	27,641	36,604	8,436	6,186
Total	339,141	306,387	316,771	338,015	79,667	76,830
California region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	464,477	416,233	455,061	479,913	107,531	115,013
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	34,344	25,426	28,247	37,058	8,541	6,329
Total	498,821	441,659	483,308	516,971	116,072	121,342
Florida region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	119,778	124,188	131,581	154,821	38,409	38,148
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	2,658	2,810	3,827	3,828	877	312
Total	122,436	126,998	135,408	158,649	39,286	38,460
Southwest region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	421,536	346,922	304,097	310,686	63,392	73,833
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Subtotal	3,903	6,281	10,877	12,950	2,152	1,809
Total	425,439	353,203	314,974	323,636	65,544	75,642

Continued on next page.

Table C-2--Continued
Portland cement: Shipments of U.S. producers, by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Unit value (per short ton)					
Southern California region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Average	$62.21	$60.13	$54.71	$55.28	$54.88	$56.11
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Average	58.99	55.51	52.55	55.97	54.08	55.73
Average	61.93	59.72	54.51	55.36	54.79	56.08
California region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Average	60.77	55.98	54.46	55.66	55.40	60.00
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Average	59.01	55.27	52.60	55.98	54.06	56.01
Average	60.65	55.93	54.35	55.68	55.30	59.77
Florida region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Average	38.73	37.60	40.34	44.97	43.30	44.99
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Average	32.81	30.22	31.11	31.38	31.32	31.20
Average	38.57	37.40	40.00	44.50	42.94	44.83
Southwest region:						
Shipments within the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Average	44.64	40.15	36.12	36.47	36.77	37.18
Shipments outside of the Southern tier region:						
Company transfers	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***
Average	54.97	40.01	33.78	31.82	32.12	31.74
Average	44.72	40.15	36.04	36.26	36.59	37.02

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table C-3
Cement clinker: Shipments of U.S. producers, by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table C-4
Portland cement and cement clinker: End-of-period inventories of U.S. producers, by product and by region, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Quantity (1,000 short ton)					
Southern California region:						
Portland cement	176	249	199	283	148	227
Cement clinker	466	683	395	363	456	475
California region:						
Portland cement	346	482	345	405	262	339
Cement clinker	592	835	440	415	601	529
Florida region:						
Portland cement	140	140	143	194	151	187
Cement clinker	59	97	65	61	65	72
Southwest region:						
Portland cement	506	560	543	533	523	472
Cement clinker	1,174	1,354	1,205	1,051	1,450	1,021
	Ratio to production (percent)					
Southern California region:						
Portland cement	3.2	4.8	3.5	4.6	2.8	4.3
Cement clinker	8.1	12.0	6.9	6.0	8.1	8.1
California region:						
Portland cement	4.2	6.0	3.9	4.3	3.4	4.3
Cement clinker	7.1	9.8	5.2	4.5	7.2	6.3
Florida region:						
Portland cement	4.5	4.1	4.2	5.4	4.2	5.5
Cement clinker	2.6	3.7	2.4	2.0	2.2	2.4
Southwest region:						
Portland cement	5.4	6.3	6.2	6.0	7.5	6.0
Cement clinker	13.3	16.0	14.1	12.1	18.6	13.0

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table C-5
Average number of production and related workers producing portland cement and cement clinker, hours worked,[1] wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs, by regions, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Number of production and related workers (PRWs)					
Southern California region...	876	792	717	698	698	691
California region.....	1,381	1,257	1,134	1,095	1,087	1,080
Florida region.....	399	521	510	487	491	430
Southwest region.....	2,011	1,667	1,487	1,383	1,454	1,379
	Hours worked by PRWs (1,000 hours)					
Southern California region...	2,174	2,003	1,789	1,750	440	431
California region.....	3,277	2,980	2,713	2,647	661	656
Florida region.....	921	1,232	1,194	1,117	281	237
Southwest region.....	4,155	3,510	3,257	3,053	775	730
	Wages paid to PRWs (1,000 dollars)					
Southern California region...	32,465	30,991	28,465	26,935	6,814	6,637
California region.....	49,299	46,082	43,305	41,474	10,505	10,474
Florida region.....	11,825	14,445	13,419	13,426	3,277	2,876
Southwest region.....	56,920	49,378	46,198	43,376	11,197	10,698
	Total compensation paid to PRWs (1,000 dollars)					
Southern California region...	37,986	36,317	33,531	31,025	7,415	7,299
California region.....	59,457	56,014	53,510	49,901	12,468	12,431
Florida region.....	16,872	18,859	17,322	16,888	4,161	3,675
Southwest region.....	70,326	60,812	56,710	53,871	14,178	13,774
	Hourly wages paid to PRWs[2]					
Southern California region...	$14.93	$15.47	$15.91	$15.39	$15.49	$15.40
California region.....	15.04	15.46	15.96	15.67	15.89	15.97
Florida region.....	12.84	11.72	11.24	12.02	11.66	12.14
Southwestern region.....	13.70	14.07	14.18	14.21	14.45	14.65
	Productivity for portland cement (short tons per hour)[3]					
Southern California region...	2.1	2.2	2.7	3.0	2.7	2.5
California region.....	2.2	2.4	2.9	3.2	2.7	2.6
Florida region.....	3.3	2.7	2.8	3.4	3.4	3.9
Southwest region.....	2.3	2.5	2.7	3.0	2.3	2.8

See footnotes at end of table.

Table C-5--Continued
Average number of production and related workers producing portland cement and cement clinker, hours worked,[1] wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs, by regions, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
	Unit labor costs for portland cement (per short ton)[4]					
Southern California region...	$8.08	$7.78	$6.59	$5.87	$6.44	$6.78
California region.....	7.99	7.44	6.62	5.92	7.11	7.23
Florida region.....	5.43	5.55	5.14	4.32	4.20	3.90
Southwest region.....	7.26	6.69	6.23	5.81	7.78	6.63

[1] Includes hours worked plus hours of paid leave time.
[2] Calculated using data from firms that provided information on both compensation paid and hours worked.
[3] Calculated using data from firms that provided information on both hours worked and production.
[4] On the basis of total compensation paid. Calculated using data from firms that provided information on both total compensation paid and production.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table C-6
Income-and-loss experience of Southern California producers on their operations producing portland cement and cement clinker, accounting years 1986-89

Item	1986	1987	1988	1989
	Value (1,000 dollars)			
Net sales	349,598	338,583	336,354	352,593
Cost of goods sold	283,515	263,933	278,112	279,609
Gross profit	66,083	74,650	58,242	72,984
Selling, general, and administrative expenses	22,738	19,259	15,881	18,268
Operating income	43,345	55,391	42,361	54,716
Interest expense	***	9,222	15,510	16,839
Other income or (expense), net	***	(4,289)	1,748	9,043
Net income before income taxes	5,572	41,880	28,599	46,920
	Share of net sales (percent)			
Cost of goods sold	81.1	78.0	82.7	79.3
Gross profit	18.9	22.0	17.3	20.7
Selling, general, and administrative expenses	6.5	5.7	4.7	5.2
Operating income	12.4	16.4	12.6	15.5
Net income before income taxes	1.6	12.4	8.5	13.3
	Number of firms reporting			
Operating losses	0	0	1	1
Net losses	1	0	2	1
Data	6	6	6	6

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table C-7
Income-and-loss experience of California producers on their operations producing portland cement and cement clinker, accounting years 1986-89

Item	1986	1987	1988	1989
	Value (1,000 dollars)			
Net sales	509,543	494,490	502,590	533,752
Cost of goods sold	400,946	374,993	396,383	406,055
Gross profit	108,597	119,497	106,207	127,697
Selling, general, and administrative expenses	38,522	33,398	28,426	29,851
Operating income	70,075	86,099	77,781	97,846
Interest expense	***	11,530	16,020	16,851
Other income or (expense), net	***	(13,626)	(7,734)	10,046
Net income before income taxes	24,514	60,943	54,027	91,041
	Share of net sales (percent)			
Cost of goods sold	78.7	75.8	78.9	76.1
Gross profit	21.3	24.2	21.1	23.9
Selling, general, and administrative expenses	7.6	6.8	5.7	5.6
Operating income	13.8	17.4	15.5	18.3
Net income before income taxes	4.8	12.3	10.7	17.1
	Number of firms reporting			
Operating losses	0	0	1	1
Net losses	1	0	2	1
Data	9	9	9	9

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table C-8
Income-and-loss experience of Florida producers on their operations producing portland cement and cement clinker, accounting years 1986-89

Item	1986	1987	1988	1989
	Value (1,000 dollars)			
Net sales	121,308	127,379	136,449	157,172
Cost of goods sold	114,795	120,755	115,300	124,475
Gross profit	6,513	6,624	21,149	32,697
Selling, general, and administrative expenses	7,953	9,656	11,503	13,067
Operating income or (loss)	(1,440)	(3,032)	9,646	19,630
Startup or shutdown expense	***	***	***	***
Interest expense	***	***	***	***
Other income, (expense), net	***	***	***	***
Net income or (loss) before income taxes	(3,874)	(10,584)	(3,680)	3,895
	Share of net sales (percent)			
Cost of goods sold	94.6	94.8	84.5	79.2
Gross profit	5.4	5.2	15.5	20.8
Selling, general, and administrative expenses	6.6	7.6	8.4	8.3
Operating income or (loss)	(1.2)	(2.4)	7.1	12.5
Net income or (loss) before income taxes	(3.2)	(8.3)	(2.7)	2.5
	Number of firms reporting			
Operating losses	2	3	1	1
Net losses	3	4	2	2
Data	5	6	6	6

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table C-9
Income-and-loss experience of Southwest producers on their operations producing portland cement and cement clinker, accounting years 1986-89

Item	1986	1987	1988	1989
	Value (1,000 dollars)			
Net sales	450,276	371,465	344,606	334,925
Cost of goods sold	386,651	327,755	334,088	332,882
Gross profit	63,625	43,710	10,518	2,043
Selling, general, and administrative expenses	32,854	33,727	33,228	35,734
Operating income or (loss)	30,771	9,983	(22,710)	(33,691)
Startup or shutdown expense	***	***	***	***
Interest expense	***	***	***	***
Other income, (expense), net	***	***	***	***
Net income or (loss) before income taxes	872	(31,653)	(60,996)	(77,021)
	Share of net sales (percent)			
Cost of goods sold	85.9	88.2	96.9	99.4
Gross profit	14.1	11.8	3.1	0.6
Selling, general, and administrative expenses	7.3	9.1	9.6	10.7
Operating income or (loss)	6.8	2.7	(6.6)	(10.1)
Net income or (loss) before income taxes	0.2	(8.5)	(17.7)	(23.0)
	Number of firms reporting			
Operating losses	10	8	10	10
Net losses	11	11	12	14
Data	18	17	16	16

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table C-10
Portland cement and cement clinker: Value of property, plant, and equipment of U.S. producers, by regions, accounting years 1986-89

Item	1986	1987	1988	1989
	Value (1,000 dollars)			
Southern California region:				
Fixed assets:				
Original cost	626,839	638,234	629,505	629,863
Book value	448,132	435,414	454,150	434,199
Total assets[1]	529,780	514,883	528,659	502,200
California region:				
Fixed assets:				
Original cost	844,877	851,133	844,663	849,360
Book value	616,587	595,483	607,692	582,032
Total assets[1]	736,908	709,415	708,125	672,912
Florida region:				
Fixed assets:				
Original cost	145,882	230,742	265,163	269,273
Book value	88,035	161,661	235,908	230,959
Total assets[1]	115,615	201,998	274,955	280,973
Southwest region:				
Fixed assets:				
Original cost	792,206	992,091	1,018,869	1,048,178
Book value	504,785	704,870	688,075	687,048
Total assets[1]	727,479	888,263	848,441	860,531
	Return on book value of fixed assets (percent)[2]			
Southern California region:				
Operating return[3]	9.7	12.7	9.3	12.6
Net return[4]	1.2	9.6	6.3	10.8
California region:				
Operating return[3]	10.2	13.2	11.5	14.9
Net return[4]	2.9	9.0	7.6	13.7
Florida region:				
Operating return[3]	3.0	1.3	4.1	8.5
Net return[4]	0.2	(3.4)	(1.6)	1.7
Southwest region:				
Operating return[3]	6.1	1.4	(3.3)	(4.9)
Net return[4]	0.2	(4.5)	(8.6)	(11.2)
	Return on total assets (percent)[2]			
Southern California region:				
Operating return[3]	8.2	10.8	8.0	10.9
Net return[4]	1.1	8.1	5.4	9.3
California region:				
Operating return[3]	8.5	11.1	9.9	12.9
Net return[4]	2.5	7.6	6.5	11.9

Table C-10--Continued
Portland cement and cement clinker: Value of property, plant, and equipment of U.S. producers, by regions, accounting years 1986-89

Item	1986	1987	1988	1989
	Return on total assets (percent)[2]			
Florida region:				
Operating return[3]	2.3	1.0	3.5	7.0
Net return[4]	0.2	(2.7)	(1.3)	1.4
Southwest region:				
Operating return[3]	4.2	1.1	(2.7)	(3.9)
Net return[4]	0.1	(3.6)	(6.9)	(8.9)

[1] Defined as book value of fixed assets plus current and noncurrent assets. Total assets are derived by apportioning total establishment assets, by firm, on the basis of the ratio of the respective book values of fixed assets.

[2] Computed using data from only those firms supplying both asset and income-and-loss information, and as such, may not be derivable from data presented.

[3] Defined as operating income or loss divided by asset value.

[4] Defined as net income or loss divided by asset value.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

APPENDIX D

TRADE AND FINANCIAL DATA, BY REGION, 1983-89

Table D-1
Portland cement: U.S. capacity, production, and capacity utilization, by product and by region, 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Production (1,000 short tons)						
Southern tier region:							
Portland cement from--							
Firms' cement clinker....	21,310	23,152	22,290	21,559	21,531	22,383	23,848
Imported cement clinker..	668	944	2,598	2,199	1,750	995	542
Purchased cement clinker.....	591	551	291	157	281	845	753
Total.....	22,569	24,647	25,179	23,915	23,562	24,223	25,143
Alternative southern tier region:							
Portland cement from--							
Firms' cement clinker....	16,964	18,479	17,663	16,557	16,070	16,705	18,290
Imported cement clinker..	668	918	2,536	2,127	1,714	995	542
Purchased cement clinker.....	588	550	291	147	281	845	729
Total.....	18,220	19,947	20,490	18,831	18,065	18,545	19,561
Southern California region:							
Portland cement from--							
Firms' cement clinker....	***	***	***	***	***	***	***
Imported cement clinker..	***	***	***	***	***	***	***
Purchased cement clinker.....	***	***	***	***	***	***	***
Total.....	4,268	5,009	5,607	5,463	5,204	5,760	6,189
California region:							
Portland cement from--							
Firms' cement clinker....	***	***	***	***	***	***	***
Imported cement clinker..	***	***	***	***	***	***	***
Purchased cement clinker.....	***	***	***	***	***	***	***
Total.....	6,392	7,527	8,162	8,193	8,034	8,755	9,344
Florida region:							
Portland cement from--							
Firms' cement clinker....	***	***	***	***	***	***	***
Imported cement clinker..	***	***	***	***	***	***	***
Purchased cement clinker.....	***	***	***	***	***	***	***
Total.....	2,932	3,091	3,030	3,146	3,394	3,367	3,611
Southwest region:							
Portland cement from--							
Firms' cement clinker....	***	***	***	***	***	***	***
Imported cement clinker..	***	***	***	***	***	***	***
Purchased cement clinker.....	***	***	***	***	***	***	***
Total.....	10,206	10,773	10,873	9,455	8,846	8,741	8,870

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Table D-1--Continued
Portland cement: U.S. capacity, production, and capacity utilization, by product and by region, 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	End-of-period capacity (1,000 short tons)						
Southern tier region:							
Portland cement	32,326	33,382	33,683	33,649	34,496	33,702	33,581
Alternative southern tier region:							
Portland cement	26,616	27,551	27,858	27,774	28,521	27,572	27,381
Southern California region:							
Portland cement	7,046	7,435	7,435	7,338	7,419	7,122	7,202
California region:							
Portland cement	10,121	10,510	10,510	10,413	10,514	10,247	10,372
Florida region:							
Portland cement	3,675	4,000	4,000	4,570	4,532	4,099	4,123
Southwest region:							
Portland cement	13,662	13,883	14,190	13,633	14,337	14,118	13,823
	Capacity utilization (percent)						
Southern tier region:							
Portland cement	69.8	73.8	74.1	69.7	67.9	71.9	74.9
Alternative southern tier region:							
Portland cement	68.5	72.4	72.7	66.2	62.9	67.3	71.4
Southern California region:							
Portland cement	60.6	67.4	75.4	74.4	70.1	80.9	85.9
California region:							
Portland cement	63.2	71.6	77.7	78.7	76.4	85.4	90.1
Florida region:							
Portland cement	79.8	77.3	75.8	68.8	74.9	82.1	87.6
Southwest region:							
Portland cement	74.7	77.6	75.0	66.1	60.8	61.9	64.2

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-2
Portland cement: Shipments of U.S. producers, by region, 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Quantity (1,000 short ton)						
Southern tier region:							
Shipments within the Southern tier region:							
Company transfers	2,574	2,782	3,036	3,402	3,438	3,616	3,876
Domestic shipments	17,963	19,468	19,845	17,947	17,177	17,656	17,965
Subtotal	20,537	22,250	22,881	21,349	20,615	21,272	21,841
Shipments outside of the Southern tier region:							
Company transfers	110	118	161	222	223	326	292
Domestic shipments	756	795	886	1,682	1,927	2,094	2,072
Subtotal	866	913	1,047	1,904	2,150	2,420	2,364
Total	22,258	24,221	24,032	23,994	23,408	24,363	25,174
Alternative Southern tier region:							
Shipments within the Southern tier region:							
Company transfers	2,385	2,629	2,945	3,307	3,373	3,614	3,817
Domestic shipments	14,729	15,858	16,135	14,237	13,249	13,351	13,597
Subtotal	17,114	18,487	19,080	17,544	16,622	16,965	17,414
Shipments outside of the Southern tier region:							
Company transfers	47	56	76	65	88	138	144
Domestic shipments	259	385	437	555	613	833	1,039
Subtotal	406	441	513	620	701	971	1,183
Total	18,375	19,986	19,697	18,905	17,966	18,607	19,566
Southern California region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	4,014	4,576	5,135	5,008	4,679	5,285	5,452
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	261	284	339	468	451	526	654
Total	4,275	4,860	5,474	5,476	5,130	5,811	6,106
California region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	5,929	6,869	7,584	7,643	7,436	8,356	8,622
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	346	363	452	582	460	537	662
Total	6,275	7,232	8,036	8,225	7,896	8,893	9,284
Florida region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	2,925	3,220	3,129	3,093	3,303	3,262	3,443
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	48	57	77	81	93	123	122
Total	2,973	3,277	3,206	3,174	3,396	3,385	3,565

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Table D-2--Continued
Portland cement: Shipments of U.S. producers, by region, 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Quantity (1,000 short ton)						
Southwest region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	10,175	10,691	10,816	9,443	8,640	8,418	8,519
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	97	100	97	71	157	322	407
Total	10,272	10,791	10,913	9,514	8,797	8,740	8,926
	Value (1,000 dollars)						
Southern tier region:							
Shipments within the Southern tier region:							
Company transfers	124,254	136,391	150,458	157,771	156,456	161,157	175,646
Domestic shipments	951,977	1,064,389	1,057,224	899,263	784,930	781,094	821,988
Subtotal	1,076,231	1,200,780	1,207,682	1,057,034	941,386	942,251	997,634
Shipments outside of the Southern tier region:							
Company transfers	4,293	4,734	6,674	9,804	8,304	11,602	10,832
Domestic shipments	38,046	41,591	46,406	81,015	80,168	87,654	88,543
Subtotal	42,339	46,325	53,080	90,819	88,472	99,256	99,375
Total	1,151,706	1,291,679	1,260,762	1,179,546	1,056,947	1,068,088	1,137,009
Alternative Southern tier region:							
Shipments within the Southern tier region:							
Company transfers	116,233	129,653	146,786	154,271	153,939	161,093	173,315
Domestic shipments	797,216	866,343	851,554	698,579	598,523	563,715	593,603
Subtotal	913,449	995,996	998,340	852,850	752,462	724,808	766,918
Shipments outside of the Southern tier region:							
Company transfers	1,572	1,782	2,846	2,072	2,636	4,658	5,068
Domestic shipments	20,782	22,689	25,706	32,094	31,490	37,687	48,314
Subtotal	22,354	24,471	28,552	34,166	34,126	42,345	53,382
Total	968,939	1,065,041	1,026,892	918,709	813,677	793,734	860,300
Southern California region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	226,738	263,294	313,637	311,536	281,352	289,130	301,411
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	14,773	16,362	19,738	27,605	25,035	27,641	36,604
Total	241,511	279,656	333,375	339,141	306,387	316,771	338,015
California region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	330,300	405,011	465,590	464,477	416,233	455,061	479,913
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	19,013	20,885	26,157	34,344	25,426	28,247	37,058
Total	349,313	425,896	491,747	498,821	441,659	483,308	516,971

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Table D-2--Continued
Portland cement: Shipments of U.S. producers, by region, 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Value (1,000 dollars)						
Florida region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	143,145	154,498	138,386	119,778	124,188	131,581	154,821
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	1,617	1,828	2,885	2,658	2,810	3,827	3,828
Total	144,762	156,326	141,271	122,436	126,998	135,408	158,649
Southwest region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	543,566	578,204	546,317	421,536	346,922	304,097	310,686
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Subtotal	5,964	6,281	5,929	3,903	6,281	10,877	12,950
Total	549,530	584,485	552,246	425,439	353,203	324,974	323,636
	Unit value (per short ton)						
Southern tier region:							
Shipments within the Southern tier region:							
Company transfers	$48.27	$49.03	$49.56	$46.37	$45.51	$44.57	$45.32
Domestic shipments	53.00	54.67	53.27	50.11	45.70	44.24	45.75
Average	52.40	53.97	52.78	49.51	45.67	44.30	45.68
Shipments outside of the Southern tier region:							
Company transfers	39.03	40.12	41.45	44.16	37.24	35.59	37.10
Domestic shipments	50.33	52.32	52.38	48.17	41.60	41.86	42.73
Average	48.89	50.74	50.70	47.70	41.15	41.01	42.04
Average	52.20	53.69	52.69	49.16	45.15	43.84	45.17
Alternative Southern tier region:							
Shipments within the Southern tier region:							
Company transfers	48.74	49.32	49.84	46.65	45.64	44.57	45.41
Domestic shipments	54.13	54.63	52.78	49.07	45.17	42.22	43.66
Average	53.37	53.88	52.32	48.61	45.27	42.72	44.04
Shipments outside of the Southern tier region:							
Company transfers	33.45	31.82	37.45	31.88	29.95	33.75	35.19
Domestic shipments	57.89	58.93	58.82	57.83	51.37	45.24	46.50
Average	55.06	55.49	55.66	55.11	48.68	43.61	45.12
Average	53.29	53.73	52.41	48.60	45.29	42.66	43.97
Southern California region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Average	56.49	57.54	61.08	62.21	60.13	54.71	55.28
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Average	56.60	57.61	58.22	58.99	55.51	52.55	55.97
Average	56.49	57.54	60.90	61.93	59.72	54.51	55.36

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Table D-2--Continued
Portland cement: Shipments of U.S. producers, by region, 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Unit value (per short ton)						
California region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Average	$55.71	$58.96	$61.39	$60.77	$55.98	$54.46	$55.66
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Average	54.95	57.53	57.87	59.01	55.27	52.60	55.98
Average	55.67	58.89	61.19	60.65	55.93	54.35	55.68
Florida region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Average	48.94	47.98	44.23	38.73	37.60	40.34	44.97
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Average	33.69	32.07	37.47	32.81	30.22	31.11	31.38
Average	48.69	47.70	44.06	38.57	37.40	40.00	44.50
Southwest region:							
Shipments within the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Average	53.42	54.08	50.51	44.64	40.15	36.12	36.47
Shipments outside of the Southern tier region:							
Company transfers	***	***	***	***	***	***	***
Domestic shipments	***	***	***	***	***	***	***
Average	61.48	62.81	61.12	54.97	40.01	33.78	31.82
Average	53.50	54.16	50.60	44.72	40.15	36.04	36.26

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-3
Portland cement: End-of-period inventories of U.S. producers, by product and by region, 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Quantity (1,000 short ton)						
Southern tier region:							
Portland cement	1,099	1,150	1,012	1,115	1,281	1,160	1,159
Alternative Southern tier region:							
Portland cement	845	865	771	818	932	890	904
Southern California region:							
Portland cement	***	***	***	***	***	***	***
California region:							
Portland cement	***	***	***	***	***	***	***
Florida region:							
Portland cement	181	181	177	140	140	143	194
Southwest region:							
Portland cement	493	483	483	448	503	496	482
	Ratio to production (percent)						
Southern tier region:							
Portland cement	5.8	5.6	4.9	5.4	6.3	5.5	5.3
Alternative Southern tier region:							
Portland cement	5.8	5.5	4.9	5.2	6.2	5.8	5.6
Southern California region:							
Portland cement	***	***	***	***	***	***	***
California region:							
Portland cement	***	***	***	***	***	***	***
Florida region:							
Portland cement	6.2	5.9	5.8	4.5	4.1	4.2	5.4
Southwest region:							
Portland cement	5.5	5.1	5.1	5.6	6.7	6.7	6.3

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-4
Income-and-loss experience of U.S. producers in the Southern-tier region on their operations producing portland cement and cement clinker, accounting years 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Value (1,000 dollars)						
Net sales	920,385	1,048,528	1,101,942	1,016,323	951,068	959,656	979,621
Cost of goods sold	758,571	839,766	900,961	829,341	778,971	820,415	834,921
Gross profit	161,814	208,762	200,981	186,982	172,097	139,241	144,700
Selling, general, and administrative expenses	75,525	79,547	83,337	72,978	72,360	72,834	78,555
Operating income	86,289	129,215	117,644	114,004	99,737	66,407	66,145
Interest expense	29,583	39,982	39,784	51,919	55,681	73,345	79,720
Other income or (expense), net	(4,484)	(2,824)	(5)	(28,216)	(21,406)	(5,482)	12,046
Net income or (loss) before income taxes	52,222	86,409	77,855	33,869	22,650	(12,420)	(1,529)
	Share of net sales (percent)						
Cost of goods sold	82.4	80.1	81.8	81.6	81.9	85.5	85.2
Gross profit	17.6	19.9	18.2	18.4	18.1	14.5	14.8
Selling, general, and administrative expenses	8.2	7.6	7.6	7.2	7.6	7.6	8.0
Operating income	9.4	12.3	10.7	11.2	10.5	6.9	6.8
Net income or (loss) before income taxes	5.7	8.2	7.1	3.3	2.4	(1.3)	(0.2)
	Number of firms reporting						
Operating losses	9	7	6	8	9	10	12
Net losses	11	7	7	11	13	14	18
Data	29	29	29	29	30	29	29

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-5
Income-and-loss experience of U.S. producers in the Alternative Southern-tier region on their operations producing portland cement and cement clinker, accounting years 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Value (1,000 dollars)						
Net sales	777,821	866,268	905,220	826,798	759,710	757,409	778,056
Cost of goods sold	630,394	703,952	741,795	684,425	634,990	670,984	680,746
Gross profit	147,427	162,316	163,425	142,373	124,720	86,425	97,310
Selling, general, and administrative expenses	56,760	59,281	61,087	53,782	53,734	55,638	62,304
Operating income	90,667	103,035	102,338	88,591	70,986	30,787	35,006
Interest expense	21,306	28,040	30,628	43,423	49,958	68,191	76,081
Other income or (expense), net	(4,541)	(2,188)	(2,121)	(26,952)	(13,121)	3,615	10,402
Net income or (loss) before income taxes	64,820	72,807	69,589	18,216	7,907	(33,789)	(30,673)
	Share of net sales (percent)						
Cost of goods sold	81.0	81.3	81.9	82.8	83.6	88.6	87.5
Gross profit	19.0	18.7	18.1	17.2	16.4	11.4	12.5
Selling, general, and administrative expenses	7.3	6.8	6.7	6.5	7.1	7.3	8.0
Operating income	11.7	11.9	11.3	10.7	9.3	4.1	4.5
Net income or (loss) before income taxes	8.3	8.4	7.7	2.2	1.0	(4.5)	(3.9)
	Number of firms reporting						
Operating losses	6	6	4	7	8	10	11
Net losses	8	6	6	10	12	14	15
Data	24	24	24	24	25	24	24

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-6
Income-and-loss experience of Southern California producers on their operations producing portland cement and cement clinker, accounting years 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Value (1,000 dollars)						
Net sales	238,706	278,435	339,846	349,598	338,583	336,354	352,593
Cost of goods sold	226,929	260,130	299,362	283,515	263,933	278,112	279,609
Gross profit	11,777	18,305	40,484	66,083	74,650	58,242	72,984
Selling, general, and administrative expenses	24,194	24,554	25,299	22,738	19,259	15,881	18,268
Operating income or (loss)	(12,417)	(6,249)	15,185	43,345	55,391	42,361	54,716
Interest expense	5,069	8,260	10,652	***	9,222	15,510	16,839
Other income or (expense), net	(4,458)	(1,538)	(1,036)	***	(4,289)	1,748	9,043
Net income or (loss) before income taxes	(21,944)	(16,047)	3,497	5,572	41,880	28,599	46,920
	Share of net sales (percent)						
Cost of goods sold	95.1	93.4	88.1	81.1	78.0	82.7	79.3
Gross profit	4.9	6.6	11.9	18.9	22.0	17.3	20.7
Selling, general, and administrative expenses	10.1	8.8	7.4	6.5	5.7	4.7	5.2
Operating income or (loss)	(5.2)	(2.2)	4.5	12.4	16.4	12.6	15.5
Net income or (loss) before income taxes	(9.2)	(5.8)	1.0	1.6	12.4	8.5	13.3
	Number of firms reporting						
Operating losses	***	***	***	***	***	***	***
Net losses	***	***	***	***	***	***	***
Data	6	6	6	6	6	6	6

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-7
Income-and-loss experience of California producers on their operations producing portland cement and cement clinker, accounting years 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-8
Income-and-loss experience of Florida producers on their operations producing portland cement and cement clinker, accounting years 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Value (1,000 dollars)						
Net sales	73,067	80,694	81,286	77,365	90,254	106,192	115,857
Cost of goods sold	60,059	67,322	68,935	69,848	81,382	91,289	95,185
Gross profit	13,008	13,372	12,351	7,517	8,872	14,903	20,672
Selling, general, and administrative expenses	3,796	4,466	4,206	3,785	5,654	9,803	11,023
Operating income	9,212	8,906	8,145	3,732	3,218	5,100	9,649
Interest expense	***	***	***	***	***	***	***
Other income, net	***	***	***	***	***	***	***
Net income or (loss) before income taxes	4,782	3,770	4,620	1,099	(4,675)	(8,004)	(4,920)
	Share of net sales (percent)						
Cost of goods sold	82.2	83.4	84.8	90.3	90.2	86.0	82.2
Gross profit	17.8	16.6	15.2	9.7	9.8	14.0	17.8
Selling, general, and administrative expenses	5.2	5.5	5.2	4.9	6.3	9.2	9.5
Operating income	12.6	11.0	10.0	4.8	3.6	4.8	8.3
Net income or (loss) before income taxes	6.5	4.7	5.7	1.4	(5.2)	(7.5)	(4.2)
	Number of firms reporting						
Operating losses	***	***	***	***	***	***	***
Net losses	***	***	***	***	***	***	***
Data	3	3	3	3	4	4	4

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-9
Income-and-loss experience of Southwest producers on their operations producing portland cement and cement clinker, accounting years 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Value (1,000 dollars)						
Net sales	466,048	507,139	484,088	399,835	330,873	314,863	309,606
Cost of goods sold	343,406	376,500	373,498	331,062	289,675	301,583	305,952
Gross profit	122,642	130,639	110,590	68,773	41,198	13,280	3,654
Selling, general, and administrative expenses	28,770	30,261	31,582	27,259	28,821	29,954	33,013
Operating income or (loss)	93,872	100,378	79,008	41,514	12,377	(16,674)	(29,359)
Interest expense	11,761	14,642	16,447	29,974	32,630	39,463	44,479
Other income or (expense), net	(129)	(652)	(1,089)	5	(9,045)	1,753	1,165
Net income or (loss) before income taxes	81,982	85,084	61,472	11,545	(29,298)	(54,384)	(72,673)
	Share of net sales (percent)						
Cost of goods sold	73.7	74.2	77.2	82.8	87.5	95.8	98.8
Gross profit	26.3	25.8	22.8	17.2	12.5	4.2	1.2
Selling, general, and administrative expenses	6.2	6.0	6.5	6.8	8.7	9.5	10.7
Operating income or (loss)	20.1	19.8	16.3	10.4	3.7	(5.3)	(9.5)
Net income or (loss) before income taxes	17.6	16.8	12.7	2.9	(8.9)	(17.3)	(23.5)
	Number of firms reporting						
Operating losses	2	2	3	7	7	8	9
Net losses	3	2	3	8	10	10	12
Data	15	15	15	15	15	14	14

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-10
Portland cement and cement clinker: Value of property, plant, and equipment of U.S. producers, by regions, accounting years 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Value (1,000 dollars)						
Southern tier region:							
Fixed assets:							
Original cost	1,394,629	1,543,573	1,589,236	1,494,725	1,786,430	1,839,452	1,900,921
Book value	1,031,917	1,106,853	1,114,850	1,041,974	1,305,017	1,378,595	1,374,066
Alternative Southern tier region:							
Fixed assets:							
Original cost	982,475	1,116,097	1,151,248	1,129,989	1,421,805	1,467,950	1,511,629
Book value	741,115	819,096	829,620	783,990	1,056,466	1,138,969	1,134,001
Southern California region:							
Fixed assets:							
Original cost	***	***	***	***	***	***	***
Book value	***	***	***	***	***	***	***
California region:							
Fixed assets:							
Original cost	***	***	***	***	***	***	***
Book value	***	***	***	***	***	***	***
Florida region:							
Fixed assets:							
Original cost	***	***	***	***	***	***	***
Book value	***	***	***	***	***	***	***
Southwest region:							
Fixed assets:							
Original cost	545,660	571,764	594,020	604,462	811,897	830,603	858,204
Book value	388,996	382,571	398,173	399,647	611,253	592,621	596,946
	Return on book value of fixed assets (percent)[1]						
Southern tier region:							
Operating return[2]	7.2	10.0	8.8	8.7	6.2	4.3	4.2
Net return[3]	3.9	6.2	5.3	1.0	0.3	(1.3)	(0.7)
Alternative Southern tier region:							
Operating return[2]	10.6	10.4	10.0	8.3	4.9	2.0	2.3
Net return[3]	7.1	6.7	6.1	(0.7)	(1.1)	(3.4)	(3.5)
Southern California region:							
Original cost	***	***	***	***	***	***	***
Book value	***	***	***	***	***	***	***
California region:							
Original cost	***	***	***	***	***	***	***
Book value	***	***	***	***	***	***	***
Florida region:							
Original cost	***	***	***	***	***	***	***
Book value	***	***	***	***	***	***	***
Southwest region:							
Operating return[2]	19.7	21.0	17.3	7.8	0.9	(2.7)	(4.9)
Net return[3]	16.7	17.0	12.9	0.3	(6.0)	(8.7)	(12.1)

[1] Computed using data from only those firms supplying both asset and income-and-loss information, and as such, may not be derivable from data presented.
[2] Defined as operating income or loss divided by asset value.
[3] Defined as net income or loss divided by asset value.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table D-11
Portland cement: U.S. imports from Mexico, Japan, and all other sources, by regions, 1983-89

Region and source	1983	1984	1985	1986	1987	1988	1989
	Quantity (1,000 short tons)						
Southern-tier region:							
Mexico	630	1,504	1,891	2,959	3,535	4,132	3,553
Japan	(1)	94	592	349	486	1,222	1,726
Total	630	1,598	2,483	3,308	4,022	5,354	5,278
All other sources	513	1,996	3,152	3,670	3,723	3,001	2,205
All sources	1,143	3,594	5,635	6,978	7,745	8,335	7,483
Alternative Southern-tier region:							
Mexico	630	1,504	1,891	2,851	3,302	3,858	3,263
Japan	0	94	575	349	486	1,183	1,606
Total	630	1,598	2,466	3,200	3,788	5,041	4,869
All other sources	513	1,963	3,100	3,494	3,576	3,001	2,128
All sources	1,143	3,561	5,766	6,694	7,364	8,042	6,997
Total United States:							
Mexico	630	1,504	1,897	3,118	3,715	4,490	3,898
Japan	(1)	94	835	514	686	1,621	2,180
Total	630	1,598	2,732	3,632	4,401	6,111	6,069
All other sources	2,420	4,759	6,853	8,454	9,430	9,114	7,504
All sources	3,050	6,356	9,584	12,086	13,831	15,225	13,583

See footnotes at end of table

Table D-11--Continued
Portland cement: U.S. imports from Mexico, Japan, and all other sources, by regions, 1983-89

Region and source	1983	1984	1985	1986	1987	1988	1989
	Value (1,000 dollars)[2]						
Southern-tier region:							
Mexico	25,799	59,920	68,473	101,440	120,854	124,310	114,346
Japan	54	3,651	20,456	11,977	17,373	40,361	54,567
Total	25,853	63,571	88,929	113,418	138,226	164,671	169,184
All other sources	24,581	72,225	123,752	132,402	125,754	101,368	86,526
All sources	50,433	135,796	212,681	245,820	263,980	266,039	255,440
Alternative Southern-tier region:							
Mexico	25,799	59,920	68,473	97,960	114,483	116,529	106,173
Japan	0	3,651	19,896	11,977	17,373	38,756	50,115
Total	25,799	63,571	88,369	109,938	131,855	155,285	156,289
All other sources	24,581	71,188	121,846	125,008	118,434	101,361	84,126
All sources	50,380	134,759	210,215	234,946	250,289	256,646	240,415
Total United States:							
Mexico	25,800	59,920	68,473	106,794	127,625	134,615	125,252
Japan	73	3,676	28,964	17,854	23,864	53,339	71,024
Total	25,873	63,596	97,437	124,647	151,489	187,954	196,276
All other sources	98,547	176,240	263,850	306,000	334,175	336,148	303,940
All sources	124,420	239,836	361,287	430,647	485,664	524,102	500,216

[1] Less than 500 short tons.
[2] Landed duty-paid value.

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

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table D-12
Cement clinker: U.S. imports from Mexico, Japan, and all other sources, by regions, 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Quantity (1,000 short tons)						
Southern-tier region:							
Mexico	264	477	581	1,094	1,135	363	328
Japan	0	84	210	83	0	0	41
Total	264	561	791	1,177	1,135	363	369
All other sources	366	925	2,254	1,864	1,210	653	337
All sources	630	1,486	3,045	3,041	2,345	1,016	706
Alternative Southern-tier region:							
Mexico	264	477	581	1,094	1,135	363	328
Japan	0	24	77	26	0	0	0
Total	264	501	658	1,120	1,135	363	328
All other sources	366	925	2,224	1,864	1,210	653	337
All sources	630	1,426	2,882	2,984	2,345	1,016	665
Total United States:							
Mexico	264	477	581	1,095	1,215	437	423
Japan	0	84	291	234	37	137	235
Total	264	561	872	1,329	1,252	574	658
All other sources	1,288	1,669	3,761	2,644	2,436	1,345	1,087
All sources	1,552	2,230	4,633	3,973	3,688	1,919	1,745

See footnotes at end of table

Table D-12--Continued
Cement clinker: U.S. imports from Mexico, Japan, and all other sources, by regions, 1983-89

Item	1983	1984	1985	1986	1987	1988	1989
	Value (1,000 dollars)[2]						
Southern-tier region:							
Mexico	7,373	13,077	16,387	23,803	24,281	8,238	9,748
Japan	0	3,332	5,545	1,976	0	0	1,280
Total	7,373	16,409	21,932	25,779	24,281	8,238	11,028
All other sources	11,488	26,020	54,335	44,521	29,947	19,291	9,585
All sources	18,861	42,429	76,267	70,300	54,228	27,529	20,613
Alternative Southern-tier region:							
Mexico	7,373	13,077	16,387	23,803	24,281	8,238	9,748
Japan	0	772	1,901	693	0	0	0
Total	7,373	13,849	18,288	24,496	24,281	8,238	9,748
All other sources	11,488	26,020	53,600	43,885	29,947	19,291	9,585
All sources	18,861	39,869	71,888	68,381	54,228	27,529	19,333
Total United States:							
Mexico	7,373	13,077	16,387	23,203	26,241	10,415	13,647
Japan	0	3,332	7,840	6,191	1,222	4,281	7,598
Total	7,373	16,409	24,227	30,014	27,463	14,696	21,245
All other sources	31,157	55,254	99,451	70,553	68,753	45,401	41,282
All sources	38,530	71,662	113,678	100,567	96,216	60,097	62,527

[1] Less than 500 short tons.
[2] Landed duty-paid value.

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

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table D-13
Portland cement: Average annual mill net prices of U.S. producers and importers of the Mexican product, by region, 1983-89

(Per short ton)

	1983	1984	1985	1986	1987	1988	1989
U.S. producers:							
Southern-tier region.....	$52.35	$52.37	$50.67	$47.93	$45.39	$43.74	$44.31
Alternative Southern-tier.	$49.74	$49.63	$47.87	$45.15	$42.44	$39.81	$40.01
U.S. importers:							
Southern-tier..	$56.55	$55.55	$49.48	$49.42	$48.08	$45.61	$45.56

Source: Compiled from data received in response to questionnaires of the U.S. International Trade Commission.

APPENDIX E

TRADE AND FINANCIAL DATA, SOUTHERN-TIER REGION,[1] BY PLANTS

[1] Data for plants in the Alternative Southern-tier are subsumed in these data. The plants that would be excluded from the Alternative Southern-tier are: Blue Circle, Calaveras/Redding, Kaiser, Lafarge/Demopolis, Lehigh/Leeds, National Cement/Ragland, RMC Lonestar, and TXI/Artesia.

Table E-1
Portland cement and cement clinker: U.S. capacity, production, and capacity utilization, by product and plants, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table E-2
Portland cement: U.S. shipments within the Southern-tier region by U.S. producers,[1] by plants, 1986-89, January-March 1989, and January-March 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table E-3
Portland cement and cement clinker: U.S. producers' inventories, by products, and plants, as of Dec. 31 of 1986-89, and as of Mar. 31 of 1989 and 1990

Item	1986	1987	1988	1989	January-March-- 1989	1990
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table E-4
Average number of production and related workers producing portland cement and cement clinker, hours worked,[1] wages and total compensation paid to such employees, by plants, 1986-89, January-March 1989, and January-March 1990[2]

Item	1986	1987	1988	1989	January-March-- 1989	1990
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table E-5
Income-and-loss experience of U.S. producers in the Southern-tier region on their operations producing portland cement and cement clinker, by plants and firms, accounting years 1986-89

Item	1986	1987	1988	1989
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

APPENDIX F

EFFECTS OF IMPORTS ON PRODUCERS' EXISTING DEVELOPMENT AND PRODUCTION EFFORTS, GROWTH, INVESTMENT, AND ABILITY TO RAISE CAPITAL

The Commission requested U.S. producers to describe and explain the actual and potential negative effects of imports of portland cement and/or cement clinker from Mexico into the Southern-tier region on the producers' existing development and production efforts, growth, investment, and ability to raise capital. The responses by producers are shown below, by plant.

* * * * * * *

APPENDIX G

DELIVERED PURCHASE PRICES OF PORTLAND CEMENT FOR SELECTED MARKET AREAS

Table G-1
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-2
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-3
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-4
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-5
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-6
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-7
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-8
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-9
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-10
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-11
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table G-12
Portland cement: Delivered purchase prices, total quantity of purchases, and margins of under/(over) selling reported by *** for the *** market area, by months, January 1988-March 1990

Period	U.S. product		Mexican product		
	Price ($/ton)	Quantity (tons)	Price ($/ton)	Quantity (tons)	Margin (percent)
*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.