

# **COMPETITIVE ASSESSMENT OF THE U.S. CERAMIC FLOOR AND WALL TILE INDUSTRY**

**Report on Investigation  
No. 332-156 Under Section  
332 of the Tariff Act of  
1930**

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# UNITED STATES INTERNATIONAL TRADE COMMISSION

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## Preface

The United States International Trade Commission instituted the present investigation, No. 332-156, on its own motion on February 22, 1983, under section 332(b) of the Tariff Act of 1930 (19 U.S.C. 1332(b)) for the purpose of assessing conditions of competition between domestic and foreign producers of ceramic floor and wall tiles. More specifically, the investigation assesses the competitive status of foreign-made and domestically produced tile in the U.S. market (by major world suppliers), compares competitive characteristics of foreign industries (by major world suppliers), and identifies steps taken by U.S. producers in responding to import competition in the U.S. market.

Notice of the investigation was given by posting copies of the notice at the Office of the Secretary, U.S. International Trade Commission, Washington, D.C., and by publishing the notice in the Federal Register of March 9, 1983 (48 F.R. 9968) (see app. A). Notice of an extension of the deadline for the filing of written submissions in the subject investigation was issued June 24, 1983, and published in the Federal Register of July 7, 1983 (48 F.R. 31309) (see app. B).

The information in this report was obtained from various published sources, from survey questionnaires sent to selected producers and importers, from discussions with industry executives, and from other sources. Responses to the questionnaire by seven U.S. producers represent 70 percent and 67 percent of U.S. production and U.S. shipments, respectively. The response rate from importers was lower, five firms, representing 15 percent of U.S. imports of ceramic floor and wall tiles; nevertheless, the information provided by importer respondents provides useful insights relative to the competitive position of the U.S. ceramic floor and wall tile industry.





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## EXECUTIVE SUMMARY

Ceramic floor and wall tiles (tiles) are thin surfacing units composed primarily of shaped and fired mixtures of nonmetallic minerals. They have been used for thousands of years as decorative veneers on floors and walls because of their beauty and durability. Tiles are produced in numerous countries throughout the world, including the United States, largely because of widespread consumer acceptance, the relative abundance of the necessary raw materials, and the relative simplicity and availability of the manufacturing technology.

Only a relatively small percentage of U.S. producers' shipments are exported to foreign markets, 4 percent in 1982 (on the basis of quantity). Thus, it is in the U.S. market that foreign-produced tiles compete most directly with the domestic product. The U.S. market's ease of entry, size (about 500 million square feet valued at \$500 million in 1982), and growth potential (the United States has the lowest per capita consumption rate for tiles of any of the major tile-consuming nations) have long attracted foreign tile manufacturers. Major tile-producing countries such as Italy, Japan, and Spain have already established themselves in the U.S. market, and others such as West Germany and Brazil are currently trying to do so. Countries with relatively smaller tile-producing capabilities have also been attracted to the U.S. market.

The following highlights are the major findings of the Commission's investigation.

o U.S. industry production and shipments declined during 1978-82.

U.S. demand for tiles is primarily dependent on the residential construction market. The decline of U.S. residential building activity during 1978-82 reduced U.S. demand for tiles and resulted in decreases in both U.S. production and producers' shipments. U.S. production declined by 7 percent during 1978-82 to 273 million square feet in 1982; U.S. producers' shipments decreased by 2 percent during the same period to 295 million square feet (\$354 million).

o Although exports represent a small percentage of U.S. shipments, the U.S. industry doubled the volume of its export shipments during 1978-82.

The volume of U.S. exports increased by 104 percent during 1978-82 to 12 million square feet (\$15 million) in 1982, whereas the share of U.S. producers' shipments represented by exports increased by 2 percentage points to 4 percent. Increased shipments to a single country, Saudi Arabia, accounted for most of the export growth during this period.

o U.S. production of mosaic and glazed nonmosaic tiles tends to be in different types and sizes than imports.

U.S. production of mosaic tiles is principally confined to unglazed nonspecialties, which are not imported in significant volume and represented

less than 4 percent of the quantity of total U.S. imports of mosaic tiles in 1982. U.S. production of glazed nonmosaic tiles is concentrated in the approximate 4-1/4"-square size, and such tiles represented 83 percent of U.S. producers' shipments of glazed nonmosaic tiles in 1982. Imports of glazed nonmosaic tiles are concentrated in other sizes.

- o As a share of sales revenue, U.S. tile industry profits outperformed the average for U.S. durable manufacturing corporations during 1978-82.

The ratio of profits per dollar of sales before taxes for the U.S. tile industry declined during 1978-82, yet outperformed the average for U.S. durable manufacturing corporations during this period. The ratio declined by almost 4 percentage points during this period to 9 percent, whereas the ratio for U.S. durable manufacturing corporations decreased by over 5 percentage points to 4 percent.

- o The U.S. industry made substantial capital expenditures during 1978-81 to improve its competitive position, but still appears to trail the world's leading tile producing country in productivity.

Capital expenditures by U.S. producers equaled 11 percent of the value of U.S. producers' shipments during 1978-81, compared with 4 percent for all operating U.S. manufacturing establishments. Productivity in the U.S. tile industry increased by 6 percent during 1978-82 to about 49,000 square feet per production worker per year in 1982. Based-on estimates of equivalent figures of 50,000 to 120,000 square feet attributed to Italian producers, U.S. productivity still trails this world leader in tile production.

- o Foreign ownership of the U.S. tile industry increased during 1978-82.

There was a net increase of four companies and seven plants under the control of foreign interests during 1978-82, bringing their known control to five companies and eight plants, compared with U.S. industry totals of 61 and 79, respectively. These five firms accounted for an estimated 20 percent or more of U.S. producers' shipments in 1982.

- o The decline in the import share of the U.S. market during 1978-82 appears to follow the decline in private, residential construction activity.

The quantity of annual U.S. imports posted an overall decline of 11 percent during 1978-82, compared with a decline of 2 percent for U.S. producers' shipments, and the share of apparent U.S. consumption represented by imports (on the basis of quantity) declined by 2 percentage points during this period to 44 percent. The slightly weaker performance of U.S. imports during this period, compared with U.S. producers' shipments, appears to be due to the narrower marketing base of imported tiles. U.S. imports are more dependent on the private, residential building market (where price is believed



to be especially important) than are U.S. producers' shipments, and this market declined during 1978-82.

Imports, which represented an average of 36 percent of apparent annual U.S. consumption (on the basis of quantity) during 1973-77, accounted for over 43 percent of U.S. consumption throughout 1978-82--peaking in 1979 at 49 percent. During the same period, the U.S. trade deficit in tiles increased to \$130 million in 1982 from \$112 million in 1978.

- o U.S. producers accounted for a significant portion of total U.S. imports during 1978-82.

U.S. producers imported \$40 million of tiles in 1982, representing an increase of 35 percent during 1978-82 and a gain in share of total imports to almost 28 percent in 1982. U.S. producers indicated in 55 percent of their questionnaire replies that they imported tiles in response to import competition. U.S. producers also cited price as a very significant factor in their decision to import, and identified quality, terms of sale, aesthetic appeal, and variety of foreign-made tile as significant reasons for importing.

- o The tile industries of Italy, Japan, and Mexico, are the major foreign competitors in the U.S. market.

In addition to Italy and Japan, which together accounted for 62 percent of the quantity and 66 percent of the value of total U.S. ceramic tile imports in 1982, Mexico, which accounted for corresponding shares of 10 and 7 percent, respectively, was frequently identified by U.S. producers as a major competitor in the U.S. market. U.S. producers generally believe that each of these foreign competitors has an overall competitive advantage in the U.S. market when compared to U.S. products, although importers indicated that the overall competitive position of Japanese- and U.S.-produced tiles were about equal.

- o A comparison of factors affecting the competitive position of the U.S. and foreign tile industries indicates that government involvement, labor and capital costs, and marketing capability are important determinants of competitive advantage.

Industry evaluation of these structural characteristics of U.S. and foreign industries suggests a competitive edge for foreign producers in the U.S. market, except in the area of marketing, where domestic firms are considered in a stronger position. When U.S. producers and importers evaluated specific product attributes, they indicated that U.S.-made tiles have the overall advantage in product availability, technical assistance, and warranties, whereas foreign-made tiles appear to have their greatest overall advantage in price.

On a bilateral basis, U.S. producers indicate that the United States competes on an equal basis with its foreign competitors in technology, but trails Italy and Brazil, whereas in most areas of capital formation and

government involvement the major ceramic tile competitors of the United States in all tile markets are judged to have a strong competitive advantage. Competitive assessments of product attributes indicate that Italy has an overall competitive advantage compared with U.S.-produced tiles, principally due to lower price and greater variety in tile availability. Producer and importer respondents also indicate that overall tile availability and the marketing-related factors of technical assistance and warranties constitute important competitive strengths of U.S.-made tiles, although these advantages are often not sufficient to offset price in determining overall competitive advantage of U.S. and foreign-made ceramic tiles.

- o U.S. producers indicated that price was the major strength of foreign-produced tiles in the U.S. market in 1982. The strengthening of the U.S. dollar relative to foreign currencies during 1978-82 contributed to the price advantage of foreign-made tiles.

The differential between the average unit value of U.S. producers' shipments and U.S. imports widened during 1978-82. Exchange-rate fluctuations and foreign cost advantages in raw materials, labor, and capital are believed largely responsible for a widening import price advantage. Exchange rates especially tended to favor foreign industries for this overall period. The currencies of all 10 major suppliers of U.S. imports in 1982 posted overall declines against the U.S. dollar during 1978-82. However, the depreciation of these currencies against the U.S. dollar did not result in a corresponding reduction in the price of U.S. imports.

## DESCRIPTION AND USES

### Product and Manufacturing Process

Tiles are thin 1/ surfacing units composed primarily of shaped and fired mixtures of nonmetallic minerals. They have been used for thousands of years as decorative veneers on floors and walls because of their beauty and durability. Tiles enjoy widespread consumer acceptance and are produced in numerous countries throughout the world, largely because of the relative abundance of the necessary raw materials and the simplicity and availability of the manufacturing technology.

On a worldwide basis, tiles are most commonly characterized in trade nomenclature as either glazed or unglazed. Glazes, carefully compounded mixtures which melt to form a glassy coating when fired, are applied to a tile face (the portion of a tile that is intended to remain exposed after installation). This layer of glassy material makes the tile face impervious to moisture and imparts a decorative appearance. Glazed tiles are available in a wide range of decorative variations because of the diversity of glazes available, including clear, opaque, monochrome, polychrome (e.g., mottled and speckled), plain surface, textured surface, light reflective (bright glazes), and light nonreflective (matt glazes). Glazed tiles are installed on both floors and walls, in interior and exterior locations, but generally are not recommended for floors subject to extremely heavy traffic. Even the most durable glazes are applied in relatively thin layers that may be worn away in heavily trafficked floor installations, and since glazed tiles typically have glazes and tile bodies of considerably different physical characteristics (e.g., water absorption rates, color, and texture), the wearing away of glazes radically alters the overall physical characteristics of a glazed tile installation.

Unglazed tiles, lacking glassy coatings, derive their physical characteristics solely from tile body ingredients and their method of manufacture. They are available in a more limited variety than glazed tiles, because tile body characteristics alone cannot approach the number of decorative variations possible by using varying combinations of tile bodies and glazes. Unglazed tiles are also installed on both floors and walls, in interior and exterior locations, and are particularly well-suited (unlike glazed tiles) for use in heavily trafficked floor areas. Since unglazed tiles have uniform physical characteristics (e.g., water absorption rates and color) throughout the tile body, wear in heavily trafficked floor areas does not radically change the overall physical characteristics of an unglazed tile installation.

In the United States, tiles are not strictly characterized in trade nomenclature as either glazed or unglazed, these distinctions are used in conjunction with a criterion of facial surface area. Tiles having facial areas of less than 6 square inches are known as mosaic, and tiles having facial areas of 6 square inches or more are termed nonmosaic. Both U.S.

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1/ "No article 1.25 inches or more in thickness shall be regarded as a tile," headnote 2(a), part 2, subpart B, schedule 5, of the Tariff Schedules of the United States Annotated (1983).

industry practice and U.S. tariff treatment combine the concepts of glazed, unglazed, mosaic, and nonmosaic to distinguish three major types of tiles: (glazed or unglazed) mosaic, glazed nonmosaic, 1/ and unglazed nonmosaic. 2/ Since the low level of U.S. exports focused this investigation on the U.S. market, and this investigation revealed that significant differences exist between these three types of tiles in the U.S. market (e.g., in the types of construction where tiles are used and the countries supplying U.S. imports), this report follows U.S. trade nomenclature practice by discussing tiles on the basis of mosaic, glazed nonmosaic, and unglazed nonmosaic tiles.

Mosaic tiles are generally produced with a hard, dense body, which is highly wear resistant and has a low water absorption rate. They are typically produced in the form of squares or rectangles and are almost invariably fastened together in sheets (e.g., 1' x 1' and 1' x 2') to reduce on-site installation time. Sheets of mosaic tiles may consist of identical tiles or mixtures of colors, shapes, and/or sizes arranged in a pattern. The method of fastening the tiles in sheets may take the form of mounting or pregrouting. There are two methods of mounting: face-mounting and back-mounting. "Face-mounting tile assemblies may have paper or other suitable material applied to the face of the tiles, usually by water soluble adhesives, so that it can be easily removed after installation but prior to grouting of the joints. Back-mounted tile assemblies may have perforated paper, fiber mesh, resin or other suitable material bonded to the back and/or edges of each tile which becomes an integral part of the tile installation." 3/ Pregrouted tiles consist "of an assembly of ceramic tile bonded together at their edges by a material, generally elastomeric, which seals the joints completely. Such material (grout) may fill the joint completely, or partially and may cover all, a portion or none of the back surfaces of the tiles in the sheets." 4/ Face-mounted sheets tend to be the least expensive and afford the best tile-mortar bond (since the maximum tile surface is directly exposed to the mortar), but an installer cannot see the tile faces as the tiles are installed, and additional work (the removal of the facing material) is required of the installer. Compared with face-mounted sheets, back-mounted sheets tend to be more expensive and more quickly installed (no time is necessary to remove the mounting material), but they do not permit as durable a tile-mortar bond, since portions of the tile back are covered by mounting materials and cannot be in direct contact with the mortar. Pregrouted sheets tend to be the most expensive and quickest to install, affording tile-mortar bonds of various degrees, depending on the amount of tile surface in direct contact with the mortar.

Mosaic tiles commonly are used on both interior and exterior applications, because of their low water absorption rate. Glazed mosaic tiles

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1/ Such tiles are also referred to as "wall tiles," but this is a misleading term, since many of these "wall tiles" are installed on floors.

2/ Such tiles are also referred to as "quarry tiles," but this is also a misleading use of the term. By definition, "quarry tiles" must be produced by an extrusion process, but a significant amount of unglazed nonmosaic tiles are not produced by extrusion.

3/ American National Standard Institute (ANSI) specification for ceramic tile, ANSI A 137.1 - 1980.

4/ Ibid.

are available in a wider range of decorative effects than unglazed mosaic tiles, but unglazed mosaic tiles are preferred for floor area subject to heavy traffic. Both glazed and unglazed mosaic tiles are especially suited for murals, curved-surface applications (such as columns), and areas subject to moisture.

Of the three types of tiles, glazed nonmosaic tiles offer the widest range of variations; they are produced in an ever-expanding array of shapes, sizes, surface topographies, textures, colors, and glazes. In size alone, they are known to vary from 6 to over 3,000 square inches in surface area. Mounted and pregrouted sheets of these tiles have not gained widespread consumer acceptance, and most of these tiles are installed individually. The tremendous variety of body densities and water absorption rates and degrees of glaze hardness make it difficult to determine whether or not a specific glazed product is suitable for an installation, but variations exist that are acceptable for almost any floor or wall, interior or exterior application. Glazed nonmosaic tiles are not generally recommended for floor installations subject to extremely heavy traffic.

Unglazed nonmosaic tiles offer the most limited variety of the three types of tiles. This type of tile is generally installed individually, requires little maintenance, is extremely durable, and is commonly less expensive than the unglazed mosaic product. Unglazed nonmosaic tiles tend to be used more frequently on floors than walls, are suitable for even the heaviest floor traffic, and are used on both interior and exterior surfaces. Tile producers are promoting exterior applications of this product by emphasizing its brick-like appearance and superior mechanical and cost properties in certain applications.

The raw materials, equipment, and manufacturing procedures of establishments producing tiles are almost as varied as the tiles themselves, but the manufacturing process basically consists of three steps: forming, glazing (if applicable); and firing. Tile body ingredients, such as clay, feldspar, and talc, are carefully proportioned to yield tile bodies with specific characteristics. Such mixtures are formed into the various tile shapes by friction presses, hydraulic presses, and/or extruding machines. Unglazed tiles are fired after forming. Glazed tiles produced by the older, two-fire method are also fired after forming, are coated with glazes, and are fired a second time to fuse the glazes. Glazed tiles produced by the newer, one-fire method are coated with glazes after forming, prior to a single firing. Tiles are fired in a variety of kilns (tunnel, shuttle, and roller hearth). Firing temperatures reach roughly 2,000 degrees Fahrenheit, and firing times range from under an hour to well over 24 hours, depending on the raw materials and equipment used and the characteristics desired in the finished product.

#### U.S. Tariff Treatment

Imported tiles are classified under items 532.20-532.27 of the Tariff Schedules of the United States (TSUS). Mosaic tiles are classified under items 532.20 and 532.22, glazed nonmosaic tiles, under item 532.24, and unglazed nonmosaic tiles, under item 532.27. The column 1 rates of duty shown

in appendix C for tiles were reduced as a result of negotiations in the Tokyo round of the Multilateral Trade Negotiations (MTN). <sup>1/</sup> The following table 1 provides the staged reductions in the rates of duty as a result of the MTN.

There have been a number of investigation developments during 1978-82. An antidumping finding against certain imports from the United Kingdom was revoked, an affirmative countervailing duty determination and countervailing duty order were issued against certain imports from Mexico, and the workers of a firm located in New Jersey were certified as eligible to apply for worker adjustment assistance during 1978-82.

The U.S. Department of Treasury (Treasury) made public an affirmative antidumping finding with respect to tiles imported under TSUS item 532.24 (glazed nonmosaic tiles) from the United Kingdom in the Federal Register of May 18, 1971 (36 F.R. 9009). The U.S. Department of Commerce (Commerce) <sup>2/</sup> conducted an administrative review of this matter and published a revocation of the dumping finding in the Federal Register of March 26, 1982 (47 F.R. 13020) (see app. D).

On October 5, 1981, the Tile Council of America, Inc. (a trade association of U.S. ceramic tile manufacturers), filed a petition with Commerce alleging that the Government of Mexico was subsidizing producers and exporters of glazed and unglazed nonmosaic tiles (TSUS item 532.24 and item 532.27). Commerce initiated an investigation of this matter on October 30, 1981, and announced a final affirmative countervailing duty determination and a countervailing duty order in the Federal Register of May 10, 1982 (47 F.R. 20012) (see app. E). Countervailing duties of 15.84 percent ad valorem were imposed, with one exception. The rate was set at zero percent for imports from one Mexican firm, which was able to verify that it did not benefit from any of the cited subsidies.

On October 20, 1981, the Oil, Chemical and Atomic Workers International Union filed a petition with the U.S. Department of Labor (Labor) on behalf of workers at H & R Johnson, Inc., Keyport, N.J., alleging that the workers were being injured by increased imports. The workers produced glazed tiles (TSUS item 532.24). Labor initiated an investigation on October 26, 1981, and published an affirmative recommendation to the certifying officer on August 30, 1982 (see app. F). Workers were certified as being eligible to apply for worker adjustment assistance on August 31, 1982 (see app. G).

## THE U.S. INDUSTRY AND MAJOR U.S. COMPETITORS

### Industry Profile

#### United States

There are 61 companies and 79 manufacturing plants within the ceramic floor and wall tile industry (Standard Industrial Classification (SIC) No.

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<sup>1/</sup> See explanation in app. C.

<sup>2/</sup> On Jan. 2, 1980, the authority for administering the antidumping duty law was transferred from Treasury to Commerce.

Table 1.--Ceramic floor and wall tiles: U.S. rates of duty, by TSUS items

(Percent ad valorem)						
TSUS item No. <u>1</u> /	Description	Pre-MTN col 1. rate of duty <u>2</u> /	Staged col. 1 rate of duty effective with respect to articles entered on or after Jan. 1--			
			1980	1981	1982	1983
	Ceramic floor and wall tiles:					
	Mosaic tiles:					
532.20	Tiles in bulk (not mounted); and tiles in sheets having per square foot not over 300 tiles, most of which have faces bounded entirely by straight lines.	24.5%	23.9%	23.4%	22.8%	22.3%
532.22A*	Other-----	24.5%	23.9%	23.4%	22.8%	22.3%
	Other:					
532.24	Glazed-----	22.5%	22.5%	22.5%	21.9%	21.3%
532.27	Other-----	24%	24%	24%	23.3%	22.7%
			Staged col. 1 rate of duty effective with respect to articles entered on or after Jan. 1--Continued			
			1984	1985	1986	1987
	Ceramic floor and wall tiles:					
	Mosaic tiles:					
532.20	Tiles in bulk (not mounted); and tiles in sheets having per square foot not over 300 tiles, most of which have faces bounded entirely by straight lines.	21.7%	21.1%	20.6%	20%	55%
532.22A*	Other-----	21.7%	21.1%	20.6%	20%	55%
	Other:					
532.24	Glazed-----	20.8%	20.2%	19.6%	19%	55%
532.27	Other-----	22%	21.3%	20.7%	20%	50%

1/ The designation "A\*" indicates that the item is currently designated as an eligible article for duty-free treatment under the U.S. Generalized System of Preferences and that certain developing countries, specified in general headnote 3(c) of the Tariff Schedules of the United States Annotated, are not eligible.

2/ Rate effective prior to Jan. 1, 1980.

3253). Currently available information suggests that there were no net changes in the number of producers and plants during 1978-82, although there were a number of company departures, additions, and ownership changes during this period. Three companies and four plants are known both to have left and been added to the industry during this period. Production facilities are largely dispersed throughout the United States, but they are somewhat concentrated in the populous States of California, Ohio, and Texas, which have 14, 12, and 11 plants, respectively.

U.S. companies within this industry tend to be privately-held, and the U.S. industry has no known foreign subsidiaries. There was a net increase of four companies and seven plants under the control of foreign interests during 1978-82, bringing their known control to five U.S. companies and eight plants which accounted for an estimated 20 percent or more of U.S. producers' shipments in 1982.

The U.S. industry is both highly specialized and concentrated. Tile shipments represent an average of 99 percent of the income (except receipts for miscellaneous activities such as merchandising, contract work, and resales) for plants classified within this industry, and such plants account for 95 percent of U.S. tile shipments. Plants classified in the brick industry are believed to account for a significant portion of the remaining 5 percent. Multiplant firms and the larger plants dominate the industry. The 29 plants with 100 or more employees account for 90 percent of industry shipments, compared to 10 percent for the 50 plants with less than 100 employees. The industry is believed to have become more concentrated during 1978-82--two of the plants added to the industry during this period were built by major tile producers, and another tile producer gained three plants by acquiring a company. A further indication of this industry's concentration is provided by seven firms which responded to the Commission's producer questionnaire. These seven firms, which operated a total of 24 plants in 1982, increased their share of U.S. production by 4 percentage points during 1978-82 to 70 percent in 1982.

U.S. production, capacity, and capacity utilization.--U.S. demand for tiles is primarily dependent on the residential construction market. The decline of U.S. residential construction activity during 1978-82 reduced U.S. demand for tiles and resulted in a decrease in U.S. production. Total U.S. production peaked at 322 million square feet in 1979 (the same year that U.S. consumption peaked) (table 2). It steadily declined during 1979-82 to 273 million square feet in 1982, posting an overall decline of 21 million square feet (7 percent) during 1978-82.



Table 2.--Ceramic floor and wall tiles: Total U.S. production, by geographic divisions, 1978-82

(In millions of square feet)

Geographic division <sup>1/</sup>	1978	1979	1980	1981	1982
New England and Middle Atlantic----	81	84	81	73	61
East North Central and West					
North Central-----	47	59	55	48	45
South Atlantic-----	55	62	62	63	53
East South Central-----	48	51	46	54	46
West South Central-----	47	47	54	48	48
Mountain and Pacific-----	17	20	21	23	20
Total-----	294	322	320	310	273

<sup>1/</sup> Geographic divisions are defined by the U.S. Department of Commerce as follows:

New England and Middle Atlantic: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

East North Central and West North Central: Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.

South Atlantic: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida.

East South Central: Kentucky, Tennessee, Alabama, and Mississippi.

West South Central: Arkansas, Louisiana, Oklahoma, and Texas.

Mountain and Pacific: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, and Hawaii.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

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

The South Atlantic and South Central States (the South) increased their combined share of U.S. production by 3 percentage points during 1978-82 to 54 percent (147 million square feet) in 1982. The South is likely to account for an even greater share of U.S. production in the future, since all of the four establishments known to have been added to the industry during 1978-82 were located in the South, and Government statistics show the South to be an area both of high population growth and the highest level of U.S. construction activity. Based on available trade information, the South is believed to offer the industry lower taxes, cheaper and/or more readily available fuels and raw materials, and lower labor costs. For example, the latest available comparable data show hourly wages in 1977 for production workers in this industry averaged \$3.00 in Texas, compared with \$4.55 in Ohio. Questionnaire respondents indicated that union representation is relatively uncommon in tile plants located in the South, compared with plants located elsewhere in the United States.

There were seven firms, which accounted for 70 percent of U.S. production in 1982, that provided the Commission with data on production, capacity, and capacity utilization. Their combined production figures followed the overall downward trend of the U.S. totals during 1978-82, but bolstered by the utilization of newly added capacity and expanding inventories, the decline in their production levels was relatively small. Their production posted an overall decline of less than 1 percent (775,000 square feet) during 1978-82 (table 3), compared with a 7-percent decline (21 million square feet) for the U.S. totals.

Table 3.--Ceramic floor and wall tiles: U.S. production, capacity, and capacity utilization, by questionnaire responses, 1/ 1978-82

Item	: 1978	: 1979	: 1980	: 1981	: 1982
Production-1,000 square feet--	192,707	204,192	200,730	205,665	191,932
Capacity-----do-----	251,080	250,830	249,070	271,350	287,700
Capacity utilization-percent--	76.8	81.4	80.6	75.8	66.7

1/ There were 7 firms, which accounted for 70 percent of U.S. production in 1982, that provided production, capacity, and capacity utilization data.

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

These seven firms reduced their combined capacity slightly during 1978-80, and then increased it to 288 million square feet in 1982, posting an overall increase of 37 million square feet (15 percent) for 1978-82. Their capacity utilization ratios peaked at 81 percent in 1979 along with U.S. consumption. As they added capacity and their production levels fluctuated downward during 1979-82, their capacity utilization ratios declined. Their capacity utilization ratio of 67 percent in 1982 represented a decline of 10 percentage points from the ratio in 1978.

U.S. producers' shipments and exports.--Official statistics show that total U.S. producers' shipments followed the downward trend of U.S. residential construction activity during 1978-82. Total U.S. producers' shipments peaked (along with U.S. production and consumption) in 1979 at 313 million square feet (\$297 million) (table 4). They declined irregularly during 1979-82 to 295 million square feet (\$354 million) in 1982, posting an overall decline of 7 million square feet (2 percent) during 1978-82.

Official statistics also show that total U.S. exports of domestic merchandise doubled during 1978-82, increasing from 6 million square feet (\$5 million) in 1978, to 12 million square feet (\$15 million) in 1982 (table 4). Most of this growth was accounted for by a single market, Saudi Arabia. The share of U.S. producers' shipments represented by exports increased by 2 percentage points during 1978-82 to 4 percent in 1982.

Table 4.--Ceramic floor and wall tiles: Total U.S. producers' shipments 1/ and exports of domestic merchandise, 1978-82

Item	1978	1979	1980	1981	1982
Quantity (1,000 square feet)					
Producer's shipments-----	301,710	312,795	297,635	299,776	294,807
Exports-----	5,802	6,688	7,942	11,151	11,828
Value (1,000 dollars)					
Producers' shipments-----	260,724	296,964	309,258	356,887	353,734
Exports-----	4,833	6,430	7,319	13,339	14,640
Unit value (per square foot)					
Producers' shipments-----	\$0.86	\$0.95	\$1.04	\$1.19	\$1.20
Exports-----	.83	.96	.92	1.20	1.24

1/ Includes both domestic and export shipments.

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

There were seven firms, which accounted for 67 percent of U.S. shipments in 1982 (on the basis of quantity), that provided the Commission with data on producers' shipments. Their combined shipments followed the general pattern of the U.S. totals, but they posted a slightly smaller decline for the overall period, as shown in the following tabulation:

Quantity (1,000 square feet)	
1978-----	198,018
1979-----	199,079
1980-----	197,592
1981-----	193,191
1982-----	197,683

Their total of 198 million square feet in 1982 1/ represented a decline of 335,000 square feet (less than 0.2 percent) compared with the amount of square feet in 1978. The utilization of newly added capacity by these seven firms is believed to have contributed to their slightly stronger shipment levels during 1978-82.

Inventories.---The combined end-of-period inventories of seven producer respondents increased during 1978-82, as U.S. demand for tiles declined. These data are shown in the following tabulation:

1/ Comparable data are not available for the value of shipments.

Quantity  
(1,000 square feet)

1978-----	28,848
1979-----	35,423
1980-----	40,566
1981-----	54,590
1982-----	50,232

Inventories almost doubled during 1978-81, as U.S. producers maintained relatively high production levels in the face of declining shipments. When U.S. producers significantly reduced production in 1982, inventory levels declined. The 1982 figure of 50 million square feet reflected a 74-percent increase from the level of inventory in 1978.

Imports.---There were eight U.S. producers which indicated that they imported tiles into the United States during 1978-82. <sup>1/</sup> These firms tended to account for an increasing share of total U.S. imports during 1978-82. Their combined data are shown in the following tabulation:

	<u>Value of</u> <u>respondents'</u> <u>imports</u> <u>(1,000 dollars)</u>	<u>Value of respondents'</u> <u>imports as a share</u> <u>of total U.S.</u> <u>imports</u> <u>(percent)</u>
1978-----	29,677	25.5
1979-----	39,341	26.2
1980-----	37,747	22.2
1981-----	42,966	22.9
1982-----	39,940	27.6

Imports by these eight firms increased in an irregular pattern during 1978-82, reaching a high of \$43 million in 1981, before decreasing slightly during 1981-82. The \$40 million import level in 1982 represents an increase of 35 percent from the 1978 level of \$30 million, and U.S. producers indicated in 55 percent of their questionnaire replies that they imported tiles in response to import competition. The share of the value of total U.S. imports represented by such imports also increased in an irregular pattern during 1978-82. The 28 percent reached in 1982 represents an 8-percent increase from the 26 percent figure of 1978. Producers' import data are not presented by types of tiles (mosaic, glazed nonmosaic, and unglazed nonmosaic) because such data are confidential and may not be published.

Employment.---The utilization of newly added capacity and growth of inventories has generally improved the level of industry employment, according to data supplied by seven responding producers. Employment in establishments

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<sup>1/</sup> Import data reflects the imports of the seven firms which returned producer questionnaires to the Commission and one firm which returned an importer questionnaire, but which is also a U.S. producer.

producing tiles increased in an irregular pattern during 1978-82, peaking at 5,952 in 1981 and reflecting a 5-percent increase to 5,685 in 1982 from that in 1978 (table 5). The number of production and related workers engaged in the manufacture of tiles peaked at 4,447 in 1980, and steadily decreased during 1980-82. Such workers numbered 3,954 in 1982, and posted an overall increase of 1 percent during 1978-82, but this growth was accompanied by an 8-percent decline in the hours worked per production worker per year. Hours worked by production and related workers engaged in the manufacture of tiles peaked at 9 million hours in 1979 (the same year that U.S. production and consumption peaked), and declined during 1979-82. The 8-million-hour total in 1982 reflected a 7-percent decline from that of 1978. Wages paid to production and related workers engaged in the manufacture of tiles steadily increased during 1978-81, reaching \$56 million in 1981, before declining during 1982. Wages totaled \$53 million in 1982 and posted an overall increase of 29 percent during 1978-82.

Table 5.--Ceramic floor and wall tiles: Average number of employees, and number of production and related workers engaged in the manufacture of tiles, man-hours worked by and wages paid to such workers, 1978-82 <sup>1/</sup>

Item	1978	1979	1980	1981	1982
Average number of employees					
number--	5,431	5,822	5,804	5,952	5,685
Number of production and related workers-----do-----	3,897	4,236	4,447	4,217	3,954
Man-hours worked					
1,000 hours--	8,310	8,865	8,290	8,709	7,759
Wages paid----1,000 dollars--	41,031	47,296	48,513	55,900	53,007

<sup>1/</sup> There were 7 firms, which accounted for 67 percent of U.S. producers' shipments in 1982 (on the basis of quantity), that provided employment data.

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

**Financial experience of U.S. producers.**--Net sales of seven producer respondents steadily increased during 1978-82 to \$269 million in 1982, or by 47 percent from that in 1978 (table 6). The growth of U.S. producers' tile prices contributed to the expansion of net sales during this period. The quantity of tile shipments remained relatively stable during 1978-82, whereas the Producer Price Index for this industry increased by 30 percent. Net profit before income taxes peaked in 1979 (along with the volume of shipments) at \$26 million, and gradually decreased (along with shipments) during 1979-82 to \$24 million in 1982. The 1982 total of \$24 million reflects a decrease of 8 percent from that in 1979, and it also reflects a 4-percent increase from the 1978 figure of \$23 million. As a share of net sales, net profit before income taxes steadily decreased during 1978-82, declining by 28 percent during this period to 8.8 percent in 1982.

Table 6.--Profit-and-loss experience of 7 U.S. producers of ceramic floor and wall tiles on their overall establishment operations, 1/ 1978-82

Item	1978	1979	1980	1981	1982
Net sales-----1,000 dollars--	183,302	212,980	224,960	250,769	269,111
Net profit before income taxes-----do-----	22,637	25,616	25,497	25,036	23,630
Ratio of net profit before income taxes to net sales percent--	12.3	12.0	11.3	10.0	8.8

1/ These 7 firms accounted for 67 percent of U.S. producers' shipments in 1982 (on the basis of quantity).

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

Capital expenditures.--The combined capital expenditures of seven producers responding are shown in the following tabulation:

	<u>Value</u> <u>(1,000 dollars)</u>
1978-----	13,778
1979-----	26,639
1980-----	29,780
1981-----	27,826
1982-----	7,776

These seven firms more than doubled their capital expenditures during 1978-80, spending almost \$30 million in 1980. As their capacity increased, capacity utilization ratios declined, and overall U.S. demand for tiles declined during 1980-82, these firms decreased their capital expenditures to less than \$8 million in 1982, 44 percent below the 1978 figure of \$14 million.

Research and development expenditures.--There were six firms that provided data on their research and development expenditures. Their combined expenditures are shown in the following tabulation:

	<u>Value</u> <u>(1,000 dollars)</u>
1978-----	2,025
1979-----	2,095
1980-----	2,046
1981-----	2,175
1982-----	2,467

These firms tended to increase their research and development expenditures during 1978-82, despite declining U.S. demand for tiles in this period. The \$2.5 million level reached in 1982, represented a 22-percent increase over the amount of expenditures in 1978.

Advertising and other promotional expenditures.--U.S. producers were requested to provide data on their advertising and other promotional (e.g., free samples and attendance at trade shows) expenditures. The combined expenditures of seven producer respondents are shown in the following tabulation:

	<u>Value</u> <u>(1,000 dollars)</u>
1978-----	4,914
1979-----	5,368
1980-----	6,896
1981-----	6,915
1982-----	7,072

As in the case of research and development expenditures, these seven firms steadily increased their advertising and other promotional expenditures during 1978-82, despite declining U.S. demand for tiles. Such expenditures totaled \$7 million in 1982, representing a 44-percent increase from the \$5 million spent in 1978.

#### Major U.S. competitors

Combined U.S. imports of ceramic tiles from the 10 leading suppliers of the United States totaled 218 million square feet, valued at \$141 million, in 1982, and represented 97 percent of imports in quantity and value in that year. Tile trade with these countries has largely been on an import basis in the U.S. market. The United States had a trade deficit in tiles with each of these 10 countries in 1982, and an overall trade deficit of 215 million square feet, or \$139 million, with all 10 countries. The leading countries are discussed in the order of their importance (on the basis of value) as suppliers of U.S. imports of tiles in 1982.

Italy.--Italy was the largest supplier of U.S. tile imports in 1982 (43 percent of the U.S. total, on the basis of value), and achieved a trade surplus of \$62 million in tile trade with the United States, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
U.S. tile imports from Italy-----	93,533	61,861
U.S. tile exports to Italy-----	-----	-----
U.S. trade deficit with Italy-----	93,533	61,861

U.S. imports from Italy are concentrated in the glazed nonmosaic tile category, which represents 93 percent of total U.S. imports of tiles from Italy (on the basis of quantity).

Trade sources report that the Italian industry is the world's largest producer of tiles, and accounted for 37.5 percent of world production in 1980. It consists of about 450 firms and 45,000 employees, with about 80 percent of production centered in Emilia-Romagna. The capacity of the Italian industry was 3.9 billion square feet in 1979. Italian production increased by 39 percent during 1976-80 to 3.6 billion square feet in 1980, but decreased by 15 percent during 1980-82 to 3.1 billion square feet in 1982. Trade sources also state that employment decreased by 10 percent during 1981-82, and 100 companies had workers in laid-off status in 1982. Italy, which exported 38 percent of its production in 1976 (on the basis of quantity), exported 49 percent (1.5 billion square feet) of its production in 1982.

According to official statistics of the European Community (EC), Italy was a net global exporter of tiles in 1982, and enjoyed a trade surplus of nearly \$1 billion, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
Italian tile exports-----	1,493,937	954,775
Italian tile imports-----	<u>32,118</u>	<u>23,920</u>
Italian trade surplus-----	1,461,819	930,855

The United States was Italy's third largest export market in 1982, behind West Germany and France.

Industry sources indicate that the Italian industry has made extensive marketing efforts to expand its share of the U.S. market during 1978-82. Individual companies promoted their tiles in the U.S. market by obtaining U.S. distributors, opening U.S. marketing subsidiaries, and operating U.S. production facilities, while collective efforts to promote Italian-produced tiles centered on advertising, preparation and distribution of trade publications, and seminars. The Italian tile industry association, which represents approximately 270 of the 450 tile manufacturers in Italy, reportedly established the Italian Tile Center in New York City on October 1, 1980, and expended an average of \$600,000 per year during 1980-82 to promote the use of Italian-produced tiles in the U.S. market. These marketing efforts were made amid declining U.S. demand for tiles, but imports from Italy increased their share of apparent U.S. consumption by almost a percentage point (on the basis of quantity) during 1978-82 to 18 percent in 1982.

Japan.---Japan was the second largest supplier of U.S. tile imports in 1982 (23 percent of the U.S. total, on the basis of value); it also achieved a trade surplus of \$34 million in tile trade with the United States, as shown in the following tabulation:



	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
U.S. tile imports from Japan----	45,730	33,749
U.S. tile exports to Japan-----	<u>129</u>	<u>238</u>
U.S. trade deficit with Japan---	45,601	33,511

U.S. imports from Japan are concentrated in the mosaic and glazed nonmosaic tile categories, which represent 34 and 64 percent of total U.S. imports of tiles from Japan (on the basis of quantity), respectively.

Trade sources state that the Japanese industry consists of over 200 firms. Japanese production increased by 2 percent during 1976-80 to 884 million square feet in 1980, accounting for 9.2 percent of world production in 1980 and representing the world's third largest producer. Japan exports an estimated 17 percent of its production.

Japan was a net global exporter of tiles in 1982, and the United States was its largest export market. Japan's total trade surplus in tile reached almost \$87 million in 1982, as shown in the following tabulation of official statistics of the Japanese Government:

	<u>Quantity 1/</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
Japanese tile exports-----	154,638	100,879
Japanese tile imports-----	<u>13,790</u>	<u>13,939</u>
Japanese trade surplus-----	140,848	86,940

1/ Estimated by Commission staff.

Mexico.--Mexico was the third largest supplier of U.S. tile imports in 1982 (7 percent of the U.S. total, on the basis of value), and registered a positive trade balance of \$10 million in tile trade with the United States, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
U.S. tile imports from Mexico---	22,547	10,670
U.S. tile exports to Mexico-----	<u>1,669</u>	<u>1,076</u>
U.S. trade deficit with Mexico--	20,878	9,594

Mexico supplies virtually no mosaic tiles to the United States. Imports of glazed and unglazed nonmosaic tiles represent 46 and 54 percent of total U.S. imports of tiles from Mexico (on the basis of quantity), respectively.

Trade publications suggest that Mexican capacity expanded during 1978-82. One plant reportedly has been expanded to an annual capacity of 30 million square feet--a large plant by U.S. standards. Official trade

statistics of the Mexican Government suggest that the United States is Mexico's primary export market.

The Republic of Korea.--The Republic of Korea (Korea) supplied the United States with \$10 million in tile imports (7 percent of the U.S. tile import total) in 1982, and realized a trade surplus, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
U.S. tile imports from Korea-----	17,638	10,404
U.S. tile exports to Korea-----	<u>444</u>	<u>344</u>
U.S. trade deficit with Korea----	17,194	10,060

U.S. imports from Korea are concentrated in the mosaic tile category, which represents 95 percent of total U.S. imports of tiles from Korea (on the basis of quantity).

Korea was a net global exporter of tiles in 1982, and the United States was its largest export market. Korea's trade surplus was almost \$16 million during 1982, as shown in the following tabulation of official statistics of the Korean Government:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
Korean tile exports-----	50,954	18,397
Korean tile imports-----	<u>8,398</u>	<u>2,755</u>
Korean trade surplus-----	42,556	15,642

Spain.--Spain was the fifth largest supplier of U.S. tile imports in 1982 (6 percent of the U.S. total, on the basis of value), possessing a trade surplus of \$9 million in tile trade with the United States in 1982, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
U.S. tile imports from Spain----	18,186	9,245
U.S. tile exports to Spain-----	<u>1/</u>	<u>1</u>
U.S. trade deficit with Spain----	18,186	9,244

1/ Less than 500 square feet.

Spain supplies limited amounts of mosaic tiles to the United States, and imports of glazed and unglazed nonmosaic tiles represent 70 and 29 percent of total U.S. imports of tiles from Spain (on the basis of quantity), respectively.

Industry sources report that the Spanish industry is the world's fourth largest producer of tiles, and accounted for 8.9 percent of world production in 1980. It consists of 200 companies and 14,000 employees, with 90 percent of production within 25 kilometers of Castellon de la Plana. Spanish production increased by 86 percent during 1976-82 to 1.3 billion square feet in 1982. Exports represented 33 percent of Spanish production in 1976 (on the basis of quantity), increased to 41 percent in 1980, and decreased to 16 percent in 1982.

Spain was a net global exporter of tiles in 1982, and had a \$75 million trade surplus, as shown in the following tabulation of official statistics of the Spanish Government:

	<u>Quantity 1/</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
Spanish tile exports-----	211,212	81,944
Spanish tile imports-----	<u>10,215</u>	<u>6,952</u>
Spanish trade surplus-----	200,997	74,992

1/ Estimated by Commission staff.

Trade publications and industry spokesmen indicate that the Spanish industry increased its U.S. marketing efforts during 1978-82. Imports from Spain doubled their share of apparent U.S. consumption during this period to 4 percent (on the basis of quantity) in 1982.

West Germany.--West Germany supplied the United States with \$7 million in tile imports (5 percent of the U.S. import total) in 1982 and enjoyed a trade surplus, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
U.S. tile imports from West Germany----	8,534	7,086
U.S. tile exports to West Germany-----	<u>1</u>	<u>4</u>
U.S. trade deficit with West Germany---	8,533	7,082

U.S. imports of mosaic tiles from West Germany are limited, and imports of glazed and unglazed nonmosaic tiles represent 47 and 46 percent, respectively, of total U.S. imports of tiles from West Germany (on the basis of quantity).

According to industry sources, the West German industry increased production by 69 percent during 1976-80, to 836 million square feet, and accounted for 8.7 percent of world production as the world's fifth largest producer in 1980. West Germany exports an estimated 40 percent of its production.

West Germany was a net importer of tiles in 1982, accounting for a trade deficit of \$4 million as shown in the following tabulation of official statistics of the EC:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
West German tile imports-----	468,974	296,196
West German tile exports-----	<u>297,747</u>	<u>292,101</u>
West German trade deficit-----	171,227	4,095

Trade publications indicate that the West German industry increased its U.S. marketing efforts during 1978-82. Two firms established U.S.-marketing subsidiaries during this period, and two firms expanded the facilities of their existing U.S.-marketing subsidiaries. In addition, one firm sponsored a tour of its facilities in West Germany for selected American architects and distributors. Marketing efforts apparently contributed to the growth of U.S. imports from West Germany during 1978-82, as these imports doubled their share of apparent U.S. consumption during this period to 2 percent in 1982 (on the basis of quantity).

Canada.--Canada was the seventh largest supplier of U.S. tile imports in 1982 (2 percent of the U.S. total, on the basis of value), and the value of U.S. imports from Canada quintupled during 1981-82. Canada had a trade surplus of almost \$3 million in tile trade with the United States in 1982, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
U.S. tile imports from Canada-----	4,620	3,053
U.S. tile exports to Canada-----	<u>702</u>	<u>487</u>
U.S. trade deficit with Canada-----	3,918	2,566

U.S. imports from Canada are concentrated in the glazed nonmosaic tile category, which represents 98 percent of total U.S. imports of tiles from Canada (on the basis of quantity).

Official statistics of the Canadian Government do not report exports of tiles separately, but Canadian imports of tiles totaled 68 million square feet, or \$35 million, in 1982.

Brazil.--Although Brazil supplied only 1 percent of U.S. tile imports in 1982 (on the basis of value), this country was cited by U.S. producers as an emerging competitor with the United States. The U.S. industry supplied no exports of tiles to Brazil in 1982 and incurred a trade deficit, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
U.S. tile imports from Brazil-----	4,401	2,068
U.S. tile exports to Brazil-----	<u>-</u>	<u>-</u>
U.S. trade deficit with Brazil-----	4,401	2,068

U.S. imports from Brazil are concentrated in the glazed nonmosaic tile category, which represents 93 percent of total U.S. imports of tiles from Brazil (on the basis of quantity).

Industry sources state that the tile industry of Brazil increased production by 57 percent during 1976-80 to 1.3 billion square feet and accounted for 13.6 percent of world production--the world's second largest producer in 1980. One plant in Brazil is reported in a trade publication to have an annual capacity of 100 million square feet, far larger than any plant located in the United States.

Trade publications and industry spokesmen indicate that the Brazilian industry increased its U.S. marketing efforts during 1978-82. Trade shows were held in a number of U.S. cities in 1981 to promote Brazilian tile exports. Imports from Brazil doubled their share of apparent U.S. consumption during 1978-82 to 1 percent in 1982 (on the basis of quantity).

France.--France was the ninth largest supplier of U.S. imports of tiles in 1982. Imports from France represented only 1 percent of the U.S. import total (on the basis of value) and 0.3 percent of apparent U.S. consumption (on the basis of quantity) in 1982, but both the quantity and value of such imports more than tripled during 1978-82. France had a trade surplus of more than \$1 million in tile trade with the United States in 1982, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
U.S. tile imports from France-----	1,300	1,501
U.S. tile exports to France-----	<u>1/</u>	<u>1</u>
U.S. trade deficit with France-----	1,300	1,500

1/ Less than 500 square feet.

U.S. imports from France are concentrated in glazed and unglazed nonmosaic tile categories, which represent 46 and 40 percent of total U.S. imports of tiles from France (on the basis of quantity), respectively.

Annual French production is estimated at 260 million square feet, based on industry sources, and France was a net importer of tiles in 1982. France had a trade deficit of almost \$319 million in tiles in 1982, as shown in the following tabulation of official statistics of the EC:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
French tile imports-----	598,238	385,473
French tile exports-----	<u>102,785</u>	<u>72,718</u>
French trade deficit-----	495,453	318,755

According to a trade publication, a West German tile manufacturer, which has a U.S.-marketing subsidiary, has production facilities in both West Germany and France. This firm is reported to ship tiles to the U.S. market from its plants both in West Germany and France.

The United Kingdom.--The United Kingdom was the tenth largest supplier of U.S. imports of tiles in 1982 (1 percent of the U.S. total, on the basis of value), but was of greater significance as a supplier of imports prior to 1982. The United Kingdom maintained a favorable trade balance of more than \$1 million in tile trade with the United States in 1982, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
U.S. tile imports from the United Kingdom-----	1,789	1,473
U.S. tile exports to the United Kingdom-----	<u>114</u>	<u>69</u>
U.S. trade deficit with the United Kingdom-----	1,675	1,404

The bulk of U.S. imports from the United Kingdom are concentrated in the unglazed nonmosaic tile category, which represents 63 percent of total U.S. imports of tiles from the United Kingdom (on the basis of quantity).

Tile production in the United Kingdom totals an estimated 180 million square feet annually, based on trade sources, and the United Kingdom was a net importer of tiles in 1982. The United Kingdom had a trade deficit of almost \$39 million in tiles in that year, as shown in the following tabulation of official statistics of the EC:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Value</u> <u>(1,000 dollars)</u>
United Kingdom tile imports-----	128,456	65,378
United Kingdom tile exports-----	<u>46,311</u>	<u>26,445</u>
United Kingdom trade deficit-----	82,145	38,933

Trade publications indicate that the tile industry of the United Kingdom has a number of tile-producing foreign subsidiaries. Until recently, one such establishment was located in the United States. Sometime after the 1971 antidumping finding against U.S. imports of tiles from the United Kingdom, a tile producer in the United Kingdom established a tile-producing U.S. subsidiary by acquiring an existing U.S. plant. The production operation at this plant, which reportedly consisted of glazing unglazed tiles imported into the United States from the United Kingdom parent, terminated in 1981-82, at about the same time Commerce revoked the antidumping finding against U.S. imports from the United Kingdom. This subsidiary continues to function in a marketing role for its United Kingdom parent.

## THE U.S. MARKET

### Total U.S. Market

The U.S. market for construction materials, such as tiles, is largely dependent on the level of U.S. construction activity. Based on questionnaire responses, tiles are primarily installed in residential construction, and therefore tile consumption and shipment trends are particularly linked to fluctuations in the level of such construction activity.

Competition for consumer dollars is intense among all floor and wall coverings, and relative demand for a particular material depends on various competitive factors. Tile industry representatives indicate that ceramic tiles generally hold a competitive advantage over other materials in terms of durability, ease of maintenance, and fire resistance, but perhaps their greatest advantage is their beauty. The aesthetic appeal of ceramic tiles is extremely strong; manufacturers of certain competitive materials (such as vinyl floor coverings, both tiles and sheet goods) specifically design their products to simulate ceramic tiles and emphasize the similarity in their advertising. However, initial price most frequently favors materials other than ceramic tiles. The tiles themselves are relatively expensive, and installation costs significantly add to this price disadvantage, since few competing materials require as much skill and time for proper installation. When consumers look beyond the initial price of tiles and consider their relatively long service life, tiles are attractive on a price basis.

The United States, which accounted for 6 percent of world consumption in 1980, has been an expanding market for tiles, and many domestic and foreign producers are optimistic about the growth potential of the U.S. market. When apparent U.S. consumption data (Commerce data) are compiled on a 5-year-total basis to minimize distortions caused by fluctuations in the level of U.S. construction activity, the U.S. market is shown to have exhibited significant growth during 1978-82, as indicated in the following tabulation:

	<u>Quantity</u> <u>(million square feet)</u>
1968-72-----	2,120
1973-77-----	2,128
1978-82-----	2,745

U.S. consumption totaled about 500 million square feet, valued at \$500 million, in 1982, despite one of the lowest per capita consumption rates for tiles of any major tile-consuming nation. Many domestic and foreign producers believe that the U.S.-per-capita-consumption figure of about 2 square feet per year, compared with 30 square feet for Italy, can be significantly expanded.

Determining the identity of the U.S. tile consumer has long been a problem for firms selling tiles in the United States. Architects, builders and contractors, installers, and the ultimate owners of tile installations all could possibly make the final purchasing decision. Based on questionnaire responses, U.S. producers spent an average of \$6 million annually on

advertising and other promotional activities during 1978-82 to reach these various consumers, spending an amount equal to 3 percent of the average value of their annual shipments. <sup>1/</sup> Questionnaire responses suggest that U.S. importers spent proportionally greater sums on advertising and other promotional activities to reach consumers during 1978-82 than did U.S. producers, but such data are confidential and may not be presented.

Apparent U.S. consumption increased by 9 percent, from 550 million square feet in 1978 to 598 million square feet in 1979, and steadily declined after that (table 7). The consumption total of 509 million square feet (\$484 million) in 1982 reflected a decline of 7 percent from that in 1978. Annual U.S. consumption remained above 500 million square feet throughout 1978-82, a level not attained prior to 1978. U.S. producers' shipments declined by 2 percent during 1978-82 to 295 million square feet (\$354 million) in 1982. U.S. imports decreased by 11 percent during this period to 226 million square feet (\$145 million) in 1982, and the share of apparent U.S. consumption held by imports declined from 46 percent in 1978 to 44 percent in 1982 (imports represented an average of 36 percent of apparent annual U.S. consumption during 1973-77).

The volume of U.S. exports more than doubled during 1978-82, both on the basis of quantity and value, but was of too low a volume to offset the growing value of U.S. imports during this period. The U.S. trade deficit in tiles steadily expanded during 1978-81--the 1981 deficit of \$174 million reflected an increase of 56 percent from the 1978 deficit--before declining to \$130 million in 1982. The reduced trade deficit in 1982 reflects an 11-percent decline in the quantity of imports during 1981-82, coupled with a 14-percent decline in the average unit value of imports; however, it still represents an overall increase of 17 percent in the U.S. deficit during 1978-82.

The decline in U.S. construction activity during 1978-82 is largely responsible for the decline in U.S. tile consumption during this period. The value of new construction put in place began the 1978-82 period at a relatively high level in 1978, but the growth of interest rates discouraged construction activity for the remainder of the period. The trend in the value of new construction put in place in 1977 constant dollars, as reported by Commerce, is shown in the following tabulation:

	<u>Value</u> <u>(millions of 1977</u> <u>constant dollars)</u>
1978-----	181,987
1979-----	178,951
1980-----	161,094
1981-----	156,167
1982-----	147,999

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<sup>1/</sup> Based on data provided by six firms submitting both the value of shipments and advertising expenditure data to the Commission.



Table 7.--Ceramic floor and wall tiles: U.S. producers' shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, 1978-82

(Quantity in thousands of square feet; value in thousands of dollars;  
unit value per square foot)

Year	Producers' shipments	Exports	Imports	Apparent consumption	Ratio (percent) of imports to consumption
Quantity					
1978	301,710	5,802	253,897	549,805	46
1979	312,795	6,688	291,576	597,683	49
1980	297,635	7,942	255,412	545,105	47
1981	299,776	11,151	254,660	543,285	47
1982	294,807	11,828	225,781	508,760	44
Value					
1978	260,724	4,833	116,375	372,266	31
1979	296,964	6,430	149,934	440,468	34
1980	309,258	7,319	170,410	472,349	36
1981	356,887	13,339	187,757	531,305	35
1982	353,734	14,640	144,925	484,019	30
Unit value					
1978	\$0.86	\$0.83	\$0.46	-	-
1979	.95	.96	.51	-	-
1980	1.04	.92	.67	-	-
1981	1.19	1.20	.74	-	-
1982	1.20	1.24	.64	-	-

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

The slightly stronger performance of U.S. producers' shipments during this period, compared with U.S. imports, may well be due to the broader market base of the domestic product. Data supplied in response to Commission's questionnaires show that U.S. imports are more dependent on the private, residential building market than U.S. producers' shipments. Commerce data indicate that the value (in 1977 constant dollars) of new construction put in place in the private, residential market declined steadily during 1978-82, as shown in the following tabulation:

Value  
(millions of 1977  
constant dollars)

1978- - - - -	81,226
1979- - - - -	75,958
1980- - - - -	60,925
1981- - - - -	55,914
1982- - - - -	47,389

Questionnaire responses indicate that U.S. producers' shipments are more important than U.S. imports in the private, nonresidential building market. Commerce data show that the value (in 1977 constant dollars) of new construction put in place in the private, nonresidential building market posted overall growth during 1978-82, as shown in the following tabulation:

Value  
(millions of 1977  
constant dollars)

1978- - - - -	32,224
1979- - - - -	36,064
1980- - - - -	35,447
1981- - - - -	39,363
1982- - - - -	41,251

Italy, Japan, and Mexico were the three principal sources of U.S. imports during 1978-82 and supplied a combined total of 162 million square feet, or 72 percent of total U.S. imports in 1982.

Of the top 10 suppliers of U.S. imports in 1982, only U.S. imports from Spain, West Germany, Canada, Brazil, and France posted absolute increases (on the basis of quantity) during 1978-82 (table 8). Of these 10 countries, all but Japan, Mexico, Korea, and the United Kingdom increased their respective shares of apparent U.S. consumption (on the basis of quantity) during 1978-82 (table 9). The decline in the U.S. market shares of Mexico, Korea, and the United Kingdom are believed attributable to special circumstances. Countervailing duties of 15.84 percent ad valorem were imposed in 1982 on U.S. imports of glazed and unglazed nonmosaic tiles from Mexico. Imports of certain mosaic tiles from Korea (which accounted for 56 percent of total U.S. imports of tiles from Korea in 1981 (on the basis of quantity)) were declared ineligible for duty-free treatment under the GSP on April 1, 1982. A U.S. glazing operation, which imported unglazed tiles from the United Kingdom as a raw material, closed during 1981-82.

Imports under the GSP provisions (limited to certain types of mosaic tiles, which were designated as eligible articles under the GSP on Mar. 30, 1980) totaled 600,000 square feet in 1980, increased to 12 million square feet in 1981, and declined to 10 million square feet in 1982. Korea, which became ineligible for GSP treatment on April 1, 1982, was the principal source of such imports during 1980-82.

Table 8.--Ceramic floor and wall tiles: U.S. imports for consumption, by principal sources, 1978-82

Source	1978	1979	1980	1981	1982
Quantity (1,000 square feet)					
Italy-----	97,732	115,218	93,343	100,337	93,533
Japan-----	65,478	68,413	60,766	52,221	45,730
Mexico-----	35,524	36,575	28,037	32,243	22,547
Kor Rep-----	19,562	27,614	16,605	21,467	17,638
Spain-----	9,979	14,419	22,583	19,664	18,186
Fr Germ-----	4,029	5,510	6,884	8,131	8,534
Canada-----	308	1,674	1,847	762	4,620
Brazil-----	2,220	3,127	5,931	6,617	4,401
France-----	419	1,735	1,065	1,733	1,300
U King-----	12,582	11,132	11,087	7,227	1,789
All other----	6,064	6,159	7,264	4,259	7,502
Total----	253,897	291,576	255,412	254,660	225,781
Value (1,000 dollars)					
Italy-----	41,231	61,408	73,090	81,342	61,861
Japan-----	37,468	39,820	45,749	46,147	33,749
Mexico-----	16,161	18,350	16,350	20,151	10,670
Kor Rep-----	7,275	11,305	7,752	12,003	10,404
Spain-----	3,577	5,226	8,125	11,699	9,245
Fr Germ-----	3,607	5,072	6,431	5,778	7,086
Canada-----	275	576	1,129	533	3,053
Brazil-----	955	1,359	2,484	3,225	2,068
France-----	384	590	1,448	1,371	1,501
U King-----	2,873	3,499	3,910	2,532	1,473
All other----	2,569	2,727	3,943	2,975	3,815
Total----	116,375	149,934	170,410	187,757	144,925
Unit value (per square foot)					
Italy-----	\$0.42	\$0.53	\$0.78	\$0.81	\$0.66
Japan-----	0.57	0.58	0.75	0.88	0.74
Mexico-----	0.45	0.50	0.58	0.62	0.47
Kor Rep-----	0.37	0.41	0.47	0.56	0.59
Spain-----	0.36	0.36	0.36	0.59	0.51
Fr Germ-----	0.90	0.92	0.93	0.71	0.83
Canada-----	0.89	0.34	0.61	0.70	0.66
Brazil-----	0.43	0.43	0.42	0.49	0.47
France-----	0.92	0.34	1.36	0.79	1.15
U King-----	0.23	0.31	0.35	0.35	0.82
All other----	0.42	0.44	0.54	0.70	0.51
Average----	0.46	0.51	0.67	0.74	0.64

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

Table 9.--Ceramic floor and wall tiles: U.S. imports as a share of the quantity of apparent U.S. consumption, by countries, 1978-82

(In percent)						
Country	1978	1979	1980	1981	1982	
Italy-----	17.8	19.3	17.1	18.5	18.4	
Japan-----	11.9	11.4	11.1	9.6	9.0	
Mexico-----	6.5	6.1	5.1	5.9	4.4	
Korea-----	3.6	4.6	3.0	4.0	3.5	
Spain-----	1.8	2.4	4.1	3.6	3.6	
West Germany-----	.7	.9	1.3	1.5	1.7	
Canada-----	.1	.3	.3	.1	.9	
Brazil-----	.4	.5	1.1	1.2	.9	
France-----	.1	.3	.2	.3	.3	
The United Kingdom-----	2.3	1.9	2.0	1.3	.4	
All other-----	1.1	1.0	1.3	.8	1.5	
Total-----	46.2	48.8	46.9	46.9	44.4	

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

#### Key U.S. Market Segments

Available information suggests several potential areas of market segmentation in the ceramic floor and wall tile market: where tiles are used--geographic markets; how tiles are used--types of construction markets (public/private, residential/nonresidential, and new/remodeling); and what tiles are used--types of tiles. Producers responding to the questionnaire indicate that market segments by type of tile are the most distinguishable. On the basis of questionnaire responses, analysis of U.S. geographic markets using available Commerce data on U.S. producers' shipments on a geographic basis is not possible since the published data reflect only the point of shipment and do not provide information on the geographic markets where such tiles are consumed. A discussion of the U.S. market in terms of type-of-construction-market segments is also not possible, since questionnaire data on this basis are confidential and may not be published.

Information obtained in this investigation suggests that mosaic, glazed nonmosaic, and unglazed nonmosaic tiles constitute three relatively separate market segments. Each of the three types is visually different, tends to differ in installation and performance characteristics, and is used in slightly different markets. Data submitted in response to Commission's questionnaires show that mosaic tiles tend to be equally utilized in the residential and nonresidential construction markets, use of glazed nonmosaic tiles tends to be concentrated in the residential construction market, and use of unglazed nonmosaic tiles tends to be concentrated in the nonresidential construction market.

Mosaic tiles

U.S. producers' shipments of mosaic tiles posted an increase of 43 percent during 1978-82 to 48 million square feet in 1982; U.S. imports declined by 25 percent during the same period to 35 million square feet in 1982 (table 10). 1/ Data submitted in response to Commission's questionnaire suggest that U.S. producers' shipments of mosaic tiles in 1982 consisted largely of unglazed nonspecialties. 2/ Commerce data indicate that unglazed nonspecialties accounted for less than 4 percent of the quantity of U.S. imports of mosaic tiles in 1982, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>	<u>Percent of total</u> <u>U.S. imports</u>
Specialties 1/-----	15,173	43.7
Nonspecialties:		
Glazed-----	18,265	52.6
Unglazed-----	<u>1,283</u>	<u>3.7</u>
Total-----	34,721	100.0

1/ Such tiles are classified under TSUS item 532.22. This item was designated as an eligible article for duty-free treatment under the GSP on Mar. 30, 1980.

The quantity of U.S. imports of unglazed nonspecialties posted an overall decline of 46 percent during 1978-82, as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 square feet)</u>
1978-----	2,391
1979-----	2,614
1980-----	1,110
1981-----	1,413
1982-----	1,283

Responses to Commission's questionnaires suggest that the private, nonresidential building market, which expanded during 1978-82, was of more significance to U.S. producers' shipments of mosaic tiles than to U.S. imports. Questionnaire responses also indicated that the private, residential building market, which contracted during 1978-82, was of more significance to U.S. imports.

Japan and Korea were the principal sources of U.S. imports during 1978-82 and supplied a combined total of 32 million square feet, or 93 percent, of

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1/ Apparent U.S. consumption data are not available by types of tiles because U.S. exports are not reported on that basis.

2/ Specialties are defined as mosaic tiles mounted in sheets having either over 300 tiles per square foot or tiles most of which have faces which are not bounded entirely by straight lines.

Table 10.--Ceramic floor and wall tiles, mosaic: U.S. producers' shipments and U.S. imports for consumption, 1978-82

Year	Producers' shipments	Imports for consumption
	Quantity (1,000 square feet)	
1978-----	33,154 :	46,198
1979-----	34,034 :	46,692
1980-----	36,504 :	35,861
1981-----	40,064 :	38,989
1982-----	1/ 47,567 :	34,721
	Value (1,000 dollars)	
1978-----	36,646 :	21,006
1979-----	41,756 :	23,332
1980-----	47,853 :	21,205
1981-----	57,791 :	26,195
1982-----	2/ 70,840 :	22,377
	Unit value (per square foot)	
1978-----	\$1.11 :	\$0.45
1979-----	1.23 :	.50
1980-----	1.31 :	.59
1981-----	1.44 :	.67
1982-----	3/ 1.49 :	.64

1/ Less than 0.5 percent of total producers' shipments were not allocated by type.

2/ Partially estimated by the Commission staff. Roughly 3 percent of the value of U.S. producers' shipments were allocated between mosaic and unglazed nonmosaic tiles.

3/ Partially estimated by the Commission staff.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

total U.S. imports in 1982 (table 11). Japan, whose tiles had higher average unit values than those of U.S. imports from Korea, accounted for the bulk of the decline in U.S. imports registered during this period. U.S. imports of mosaic specialties from Korea (which accounted for 56 percent of U.S. imports from Korea in 1981) were declared ineligible for duty-free treatment under the GSP on April 1, 1982.

#### Glazed nonmosaic tiles

U.S. producers' shipments and U.S. imports of glazed nonmosaic tiles both decreased by 9 percent during 1978-82 to 207 and 159 million square feet, respectively, in 1982 (table 12). Data submitted in response to the

Table 11.--Ceramic floor and wall tiles, mosaic: U.S. imports for consumption, by principal sources, 1978-82

Source	1978	1979	1980	1981	1982
Quantity (1,000 square feet)					
Japan-----	27,320	20,580	19,298	17,400	15,459
Kor Rep-----	16,964	24,591	15,331	20,052	16,754
Italy-----	645	669	471	699	829
Fr Germ-----	36	89	237	143	650
France-----	8	1/	61	288	184
Nethlds-----	1/	0	0	1	88
China t-----	48	95	144	25	206
Spain-----	330	186	26	31	132
Thailnd-----	335	86	35	157	139
Brazil-----	22	42	52	17	52
All other-----	488	353	208	176	227
Total-----	46,198	46,692	35,861	38,989	34,721
Value (1,000 dollars)					
Japan-----	14,271	12,774	13,170	13,933	10,566
Kor Rep-----	5,973	9,750	6,947	11,037	9,881
Italy-----	347	439	353	626	507
Fr Germ-----	25	84	294	137	476
France-----	7	2	89	153	233
Nethlds-----	1	-	-	3	218
China t-----	19	34	81	12	141
Spain-----	97	64	25	27	95
Thailnd-----	99	32	17	99	82
Brazil-----	17	16	30	6	34
All other-----	150	137	198	163	145
Total-----	21,006	23,332	21,205	26,195	22,377
Unit value (per square foot)					
Japan-----	\$0.52	\$0.62	\$0.68	\$0.80	\$0.68
Kor Rep-----	0.35	0.40	0.45	0.55	0.59
Italy-----	0.54	0.66	0.75	0.89	0.61
Fr Germ-----	0.68	0.94	1.24	0.96	0.73
France-----	0.86	26.24	1.46	0.53	1.27
Nethlds-----	1.41	-	-	4.88	2.48
China t-----	0.40	0.36	0.57	0.50	0.68
Spain-----	0.30	0.35	0.98	0.87	0.72
Thailnd-----	0.29	0.37	0.50	0.63	0.59
Brazil-----	0.74	0.39	0.58	0.37	0.65
All other-----	0.31	0.39	0.95	0.92	0.64
Average-----	0.45	0.50	0.59	0.67	0.64

1/ Less than 500.

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

Table 12.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. producers' shipments and U.S. imports for consumption, 1978-82

Year	Producers' shipments	Imports for consumption
	Quantity (1,000 square feet)	
1978-----	228,020 :	174,802
1979-----	238,020 :	202,046
1980-----	218,984 :	176,975
1981-----	219,333 :	177,651
1982-----	1/ 206,622 :	159,477
	Value (1,000 dollars)	
1978-----	188,588 :	86,255
1979-----	216,198 :	112,147
1980-----	219,407 :	130,931
1981-----	252,784 :	145,793
1982-----	228,985 :	108,748
	Unit value (per square foot)	
1978-----	\$0.83 :	\$0.49
1979-----	.91 :	.56
1980-----	1.00 :	.74
1981-----	1.15 :	.82
1982-----	2/ 1.11 :	.68

1/ Less than 0.5 percent of total producers' shipments were not allocated by type.

2/ Partially estimated by the Commission staff.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Commission's questionnaire show that tiles of roughly 4-1/4" x 4-1/4" dimensions accounted for 83 percent of U.S. producers' shipments in 1982 (on a quantity basis). Similar data on U.S. imports are confidential, but questionnaire responses do suggest that 4-1/4" x 4-1/4" tiles compose only a small portion of U.S. imports of glazed nonmosaic tiles. Questionnaire responses indicated that the private, nonresidential building market, which expanded during 1978-82, was of more significance to U.S. producers' shipments than U.S. imports, and the private, residential building market, which declined during 1978-82, was more significant to U.S. imports than to U.S. producers' shipments.

Italy and Japan were the principal sources of U.S. imports during 1978-82 and supplied a combined total of 116 million square feet, or 73 percent, of total U.S. imports in 1982 (table 13).



Table 13.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. imports for consumption, by principal sources, 1978-82

Source	1978	1979	1980	1981	1982
Quantity (1,000 square feet)					
Italy-----	89,477	102,820	83,669	92,974	86,636
Japan-----	37,832	47,130	40,816	34,037	29,370
Spain-----	8,212	11,125	18,779	16,218	12,709
Mexico-----	25,951	25,635	16,727	18,269	10,408
Fr Germ-----	1,857	2,340	2,802	2,934	3,988
Canada-----	109	228	45	609	4,530
Brazil-----	1,973	2,732	5,312	6,339	4,109
France-----	106	207	620	806	602
Phil R-----	1,923	2,047	1,128	857	1,223
Kor Rep-----	2,531	2,955	1,211	1,349	854
All other----	4,830	4,826	5,868	3,259	5,048
Total-----	174,802	202,046	176,975	177,651	159,477
Value (1,000 dollars)					
Italy-----	38,940	57,059	68,217	77,347	58,931
Japan-----	22,980	26,463	31,956	31,475	22,392
Spain-----	3,066	4,044	6,675	10,252	7,519
Mexico-----	14,017	15,810	13,302	15,893	6,779
Fr Germ-----	1,841	2,425	2,951	2,705	3,910
Canada-----	68	163	34	388	3,004
Brazil-----	883	1,215	2,299	3,125	1,880
France-----	181	314	925	871	798
Phil R-----	722	672	487	408	674
Kor Rep-----	1,279	1,508	757	922	495
All other----	2,277	2,474	3,328	2,408	2,367
Total-----	86,255	112,147	130,931	145,793	108,748
Unit value (per square foot)					
Italy-----	\$0.44	\$0.55	\$0.82	\$0.83	\$0.68
Japan-----	0.61	0.56	0.78	0.92	0.76
Spain-----	0.37	0.36	0.36	0.63	0.59
Mexico-----	0.54	0.62	0.80	0.87	0.65
Fr Germ-----	0.99	1.04	1.05	0.92	0.98
Canada-----	0.63	0.71	0.77	0.64	0.66
Brazil-----	0.45	0.44	0.43	0.49	0.46
France-----	1.71	1.51	1.49	1.08	1.33
Phil R-----	0.38	0.33	0.43	0.48	0.55
Kor Rep-----	0.51	0.51	0.62	0.68	0.58
All other----	0.47	0.51	0.57	0.74	0.47
Average----	0.49	0.56	0.74	0.82	0.68

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

Of the top 10 suppliers of U.S. imports of glazed nonmosaic tiles in 1982 (on the basis of value), the quantity of U.S. imports posted overall increases during 1978-82 for Spain (up 55 percent), West Germany (up 115 percent), Canada (up 4,056 percent), Brazil (up 108 percent), and France (up 468 percent). Overall decreases in the quantity of U.S. imports during this period were recorded by Italy (down 3 percent), Japan (down 22 percent), Mexico (down 60 percent), the Philippines (down 36 percent), and Korea (down 66 percent). Increased U.S. marketing efforts are believed to have made a significant contribution toward the growth of imports from Spain, West Germany, Brazil, and France during this period. The closing of a U.S.-glazing operation that was owned by a United Kingdom manufacturer of tiles is believed to have significantly contributed to the growth of imports from Canada during this period. The U.S.-glazing operation was closed during 1981-82, the same period that most of the growth in U.S. imports from Canada occurred. The United Kingdom parent has production facilities in Canada, and the increase in imports from Canada during 1981-82 is believed to represent an attempt by the United Kingdom parent to continue to supply U.S. demand for its product through its Canadian subsidiary. The decline in the private, residential building market is believed largely responsible for the decline in U.S. imports from Italy, Japan, Mexico, the Philippines, and Korea during this period, but imports from Mexico were also affected by the imposition of countervailing duties of 15.84 percent ad valorem in 1982.

#### Unglazed nonmosaic tiles

The quantity of U.S. producers' shipments of unglazed nonmosaic tiles remained relatively stable during 1978-82 and totaled 41 million square feet in 1982, whereas the quantity of U.S. imports declined by 4 percent during the same period to 32 million square feet in 1982 (table 14). Questionnaire responses indicate that the relative strength of U.S. producers' shipments may be due to greater reliance on the private, nonresidential building market, which increased during 1978-82, than was the case for U.S. imports.

Mexico was the principal source of U.S. imports during 1978-82 and supplied 12 million square feet, or 38 percent, of the U.S. total in 1982 (table 15). Countervailing duties of 15.84 percent ad valorem were imposed in 1982 on U.S. imports from Mexico.

Of the top 10 suppliers of U.S. imports in 1982 (on the basis of value), the quantity of U.S. imports posted overall increases during 1978-82 for Mexico (up 27 percent), West Germany (up 82 percent), Spain (up 272 percent), Japan (up 177 percent), France (up 69 percent), Sweden (from no imports in 1978 to 412,000 square feet in 1982), and Brazil (up 7 percent). Overall decreases in the quantity of U.S. imports were recorded during this period by Italy (down 20 percent), the United Kingdom (down 90 percent), and Canada (down 57 percent). Trade sources indicate that increased U.S. marketing efforts accompanied the growth of U.S. imports from West Germany, Spain, France, and Brazil during this period. No available information indicates similar increased U.S. marketing efforts by Mexico, Japan, or Sweden. The

Table 14.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. producers' shipments and U.S. imports for consumption, 1978-82

Year	Producers' shipments	Imports for consumption
	Quantity (1,000 square feet)	
1978-----	40,536 :	32,897
1979-----	40,740 :	42,839
1980-----	42,147 :	42,576
1981-----	40,379 :	38,020
1982-----	1/ 40,539 :	31,582
	Value (1,000 dollars)	
1978-----	35,490 :	9,114
1979-----	39,010 :	14,455
1980-----	41,998 :	18,274
1981-----	46,312 :	15,768
1982-----	2/ 53,909 :	13,799
	Unit value (per square foot)	
1978-----	\$0.88 :	\$0.28
1979-----	.96 :	.34
1980-----	1.00 :	.43
1981-----	1.15 :	.41
1982-----	3/ 1.33 :	.44

1/ Less than 0.5 percent of total producers' shipments were not allocated by type.

2/ Partially estimated by the Commission staff. Roughly 3 percent of the value of U.S. producers' shipments were allocated between mosaic and unglazed nonmosaic tiles.

3/ Partially estimated by the Commission staff.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

decline in the private, residential building market is believed largely responsible for the decline in U.S. imports from Italy and Canada. The 1981-82 closing of a U.S.-glazing operation, which imported unglazed nonmosaic tiles from the United Kingdom as a raw material, is believed largely responsible for the overall decline of U.S. imports from the United Kingdom during 1978-82.

Table 15.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. imports for consumption, by principal sources, 1978-82

Source	1978	1979	1980	1981	1982
Quantity (1,000 square feet)					
Mexico-----	9,540	10,836	11,283	13,953	12,120
Fr Germ-----	2,136	3,081	3,845	5,055	3,896
Italy-----	7,610	11,728	9,203	6,664	6,068
Spain-----	1,437	3,108	3,778	3,415	5,345
U King-----	10,904	9,719	10,590	6,736	1,126
Japan-----	325	703	653	784	901
France-----	304	1,528	385	639	515
Sweden-----	0	24	303	130	412
Brazil-----	224	353	568	261	240
Canada-----	196	1,407	1,753	105	84
All other----	221	351	215	278	876
Total-----	32,897	42,839	42,576	38,020	31,582
Value (1,000 dollars)					
Mexico-----	2,125	2,498	3,025	4,248	3,879
Fr Germ-----	1,741	2,564	3,186	2,936	2,700
Italy-----	1,944	3,911	4,520	3,370	2,423
Spain-----	413	1,118	1,425	1,420	1,631
U King-----	2,117	2,720	3,538	2,191	1,050
Japan-----	217	584	623	740	790
France-----	196	275	434	347	470
Sweden-----	-	30	173	134	372
Brazil-----	55	128	156	94	154
Canada-----	203	390	1,067	100	41
All other----	103	239	128	189	290
Total-----	9,114	14,455	18,274	15,768	13,799
Unit value (per square foot)					
Mexico-----	\$0.22	\$0.23	\$0.27	\$0.30	\$0.32
Fr Germ-----	0.82	0.83	0.83	0.58	0.69
Italy-----	0.26	0.33	0.49	0.51	0.40
Spain-----	0.29	0.36	0.38	0.42	0.31
U King-----	0.19	0.28	0.33	0.33	0.93
Japan-----	0.67	0.83	0.95	0.94	0.88
France-----	0.64	0.18	1.13	0.54	0.91
Sweden-----	-	1.23	0.57	1.03	0.90
Brazil-----	0.25	0.36	0.27	0.36	0.64
Canada-----	1.04	0.28	0.61	0.96	0.49
All other----	0.46	0.68	0.60	0.68	0.33
Average----	0.28	0.34	0.43	0.41	0.44

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

## THE WORLD MARKET

### World Consumption

World demand for tiles is dependent on construction activity. Industry sources indicate that world tile production and consumption increased by 37 percent during 1976-80 to almost 10 billion square feet in 1980, and declined during 1980-82. World production and consumption of tiles are concentrated in Europe, Brazil, and Japan. Of the almost 10 billion square feet of tiles produced and consumed in the world in 1980, these three areas accounted for an estimated 90 percent of world production and 80 percent of world consumption, compared with 3 and 6 percent, respectively, for the United States. Europe accounts for the bulk of world consumption, accounting for an estimated 60 percent in 1980. Tiles are especially suited for application over masonry bases, and the prevalence of masonry construction in Europe undoubtedly contributes to the popularity of tiles in that area of the world.

### U.S. Exports

Saudi Arabia and Mexico remained the two principal U.S. export markets during 1978-82. Combined shipments to these two countries totaled almost 7 million square feet (\$9 million) in 1982, and represent 56 percent of total U.S. exports (table 16). The future of U.S. exports to Saudi Arabia and Mexico appears somewhat clouded at present. A contract was recently awarded to build a tile plant in Saudi Arabia, and even a relatively small plant's production could equal the volume of U.S. exports to Saudi Arabia. On June 26, 1981, the Government of Mexico imposed licensing restrictions on the importation of glazed nonmosaic tiles (TSUS item 532.24). The quantity of U.S. exports to Mexico did decrease by about a third during 1981-82, but it is not apparent whether this decline was due to the licensing restrictions, or to some other factor, such as the increasing value of the U.S. dollar against the Mexican peso in 1982, which made U.S.-produced goods less attractive in Mexico by increasing their cost.

U.S. exports currently account for a relatively small portion of U.S. producers' shipments (4 percent in 1982, on the basis of quantity), and the producers that responded indicate that the relatively high prices of U.S.-produced tiles are believed to limit their export potential. The questionnaire responses of five U.S. producers indicate that they believe that price is the single factor that tends to limit the export potential of U.S.-produced tiles the most. U.S. producers also indicated in their questionnaire responses that U.S.-produced tiles tend to be more expensive than foreign-produced tiles in the U.S. market. When U.S.-produced tiles are exported, their relatively high prices are further elevated by the addition of charges such as freight, insurance, and import duties, making them even more unattractive on the basis of price in foreign markets.

Table 16.--Ceramic floor and wall tiles: U.S. exports of domestic merchandise, by principal markets, 1978-82

Market	1978	1979	1980	1981	1982
Quantity (1,000 square feet)					
S Arab-----	1,175	1,950	1,696	5,257	4,960
Mexico-----	1,663	1,739	2,060	2,521	1,669
Bahamas-----	330	567	716	632	858
Canada-----	874	630	467	538	702
N Antil-----	80	100	139	62	420
Kor Rep-----	0	10	3	20	444
Bermuda-----	91	215	52	153	231
Kuwait-----	1	0	74	103	126
Japan-----	113	148	101	11	129
Jamaica-----	11	13	66	41	213
All other----	1,465	1,316	2,566	1,811	2,076
Total-----	5,802	6,688	7,942	11,151	11,828
Value (1,000 dollars)					
S Arab-----	1,414	2,796	2,213	7,383	7,928
Mexico-----	366	724	1,361	1,574	1,076
Bahamas-----	334	497	838	868	979
Canada-----	362	312	351	499	487
N Antil-----	81	98	153	115	361
Kor Rep-----	-	11	6	27	344
Bermuda-----	53	163	53	191	312
Kuwait-----	6	-	170	109	292
Japan-----	153	141	113	10	238
Jamaica-----	15	15	74	47	171
All other----	2,048	1,672	1,987	2,516	2,451
Total-----	4,833	6,430	7,319	13,339	14,640
Unit value (per square foot)					
S Arab-----	\$1.20	\$1.43	\$1.31	\$1.40	\$1.60
Mexico-----	0.22	0.42	0.66	0.62	0.64
Bahamas-----	1.01	0.88	1.17	1.37	1.14
Canada-----	0.41	0.49	0.75	0.93	0.69
N Antil-----	1.01	0.98	1.10	1.87	0.86
Kor Rep-----	-	1.07	1.82	1.31	0.77
Bermuda-----	0.59	0.76	1.02	1.25	1.35
Kuwait-----	8.53	-	2.28	1.06	2.32
Japan-----	1.35	0.95	1.12	0.90	1.84
Jamaica-----	1.43	1.21	1.11	1.13	0.80
All other----	1.40	1.27	0.77	1.39	1.18
Average----	0.83	0.96	0.92	1.20	1.24

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

## CONDITIONS OF COMPETITION

An assessment of factors affecting the competitive posture of the U.S. ceramic floor and wall tile industry relative to the foreign tile industries of major world competitors indicates that government involvement, labor and capital costs, and marketing capability are important determinants of competitive advantage. Industry evaluation of these structural factors suggests a competitive edge for foreign producers in the U.S. market, except in the areas of marketing, where domestic firms are considered to have a stronger position. When U.S. producers and importers evaluated specific product attributes, they indicated that U.S.-made tiles have the overall advantage in product availability, technical assistance, and warranties, whereas foreign-made tiles appear to have their greatest overall advantage in price. While certain exceptions in these areas may be cited by producers and importers relative to a specific type of tile and foreign competitor, these conclusions are based on the aggregate responses to Commission's questionnaires received from U.S. producers and importers which provided competitive assessments of the U.S. and foreign tile industries, by types of tiles, for 1982. <sup>1/</sup>

A further comparison of structural factors of competition by types of tiles produced (table 17) identifies marketing capability of U.S. producers as their principal strength in all tile markets, whereas raw material, capital and labor costs, and support from virtually all facets of government were advantages identified as providing a competitive edge for foreign tile industries. A competitive advantage in the ability of industry profits to attract capital was attributed to the U.S. industry in 1982 only for mosaic tiles. This advantage is largely due to the relative strength of U.S. producers' shipments of mosaic tiles during 1981-82, which increased by 19 percent in quantity during this period, compared with a decline of 6 percent for glazed nonmosaic and an increase of less than 1 percent for unglazed nonmosaic during the same period. In addition, major competitors such as Italy, Japan, and Mexico provide more limited competition in the mosaic tile segment of the U.S. market. An assessment by U.S. producers of these structural factors on a bilateral basis also clearly places the U.S. industry

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<sup>1/</sup> There were seven U.S. producers, which accounted for 67 percent of the total quantity of U.S. producers' ceramic tile shipments in 1982, and five U.S. importers, which accounted for 15 percent of the total quantity of U.S. ceramic tile imports in 1982, that responded to the Commission's questionnaires. See app. H for U.S. producers' and importers' competitive assessments and U.S. producers' reasons for importing, on an aggregate basis.

Table 17.--Ceramic floor and wall tiles, all types: U.S. producers' competitive assessments 1/ of structural factors of competition for the U.S. industry and selected foreign industries, 1982

Item	Competitive advantage <u>2/</u>		
	Mosaic tiles <u>3/</u>	Glazed nonmosaic tiles <u>4/</u>	Unglazed nonmosaic tiles <u>5/</u>
Raw materials:			
Availability-----	S	S	S
Cost-----	F	F	F
Fuel:			
Availability-----	S	S	S
Cost-----	S	US	US
Capital:			
Availability-----	F	F	F
Cost-----	F	F	F
Ability of industry profits to attract capital-----	US	F	F
Labor:			
Availability-----	F	F	S
Cost-----	F	F	F
Technology-----	S	S	S
Marketing:			
Channels of distribution-----	US	US	S
Responsiveness to orders-----	US	US	US
After-sale service capabilities-----	US	US	US
Government involvement:			
Subsidies-----	F	F	F
Research and development-----	F	F	S
Tariff levels-----	F	F	F
Nontariff barriers-----	F	F	-
Regulation-----	F	F	F

1/ Data supplied by 2 U.S. firms for mosaic tiles, 7 firms for glazed nonmosaic tiles, and 2 firms for unglazed nonmosaic tiles.

2/ F = Foreign advantage; U.S. = domestic advantage; and S = competitive position the same.

3/ Italy, Japan, and West Germany are the selected foreign countries.

4/ Italy, Japan, Mexico, West Germany, and Brazil are the selected foreign countries.

5/ Italy, Japan, and Mexico are the selected foreign countries.

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



in the strongest competitive position in the marketing area in comparisons with all its major competitors (table 18). Fuel cost is also a major U.S. advantage, except in competition with tiles imported from Mexico. The U.S. industry competes on an equal basis with its major competitors in fuel and raw material availability and in technology, with the exception of Italy and Brazil. In most areas of capital formation and government involvement, the major ceramic tile competitors of the United States are judged by U.S. producers to have a strong competitive advantage.

Competitive assessments of product attributes (tables 19 and 20) indicate that Italy has an overall competitive advantage for all types of tiles in the U.S. market, principally due to lower price and a greater variety in ceramic tile availability. In the competitive areas of overall product availability and the marketing-related factors of technical assistance and warranties, both producers and importers agree that these constitute important competitive strengths of U.S.-made ceramic tiles; despite these advantages, however, importers cite price advantage as sufficient to provide an overall competitive advantage for Korean-made tiles in the U.S. market. U.S. producers also attribute the overall competitive advantage to Japan, Mexico, and Brazil principally on the basis of price and terms-of-sale considerations. U.S. producers have also noted the high degree of government involvement in each of these three competing industries.

U.S. producer and importer respondents gave foreign-made mosaic tiles an overall competitive advantage in the U.S. market, whereas U.S.-produced unglazed nonmosaic tiles were rated as having the competitive edge compared with foreign-made tiles. The lower price of foreign-made mosaic tiles, along with their greater variety were the principal reasons cited for this competitive advantage. 1/ With respect to the competitive advantage of U.S.-produced unglazed nonmosaic tiles, the competitive factors relating to overall availability--principally short leadtimes for noninventoried items, availability of matching trim, and prompt delivery of inventoried items--along with marketing-related strengths of technical assistance and warranties, were of considerable importance in the U.S. market despite an apparent price advantage cited by U.S. producers as very significant in their decision to import unglazed nonmosaic tiles. 2/

Glazed nonmosaic tiles comprise the largest of the three tile categories in the U.S. market, and trade information suggests that it is also the largest tile category on a world basis. In the United States, the glazed nonmosaic segment of the U.S. market is the most price competitive of the three types of tiles because it has the greatest number of foreign participants. U.S. producer and importer respondents rated each other's products as having the overall competitive advantage in glazed nonmosaic tiles, although domestic

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1/ See app. I for U.S. producers' and importers' competitive assessments of mosaic tiles, total and by country, and U.S. producers' reasons for importing mosaic tiles.

2/ See app. J for U.S. producers' and importers' competitive assessments of unglazed nonmosaic tiles, total and by country, and U.S. producers' reasons for importing unglazed nonmosaic tiles.

Table 18 .--Ceramic floor and wall tiles, all types: U.S. producers' competitive assessments 1/ of structural factors of competition for the U.S. and selected foreign industries, 1982

Item	Competitive advantage <u>2/</u>					
	United States	Italy	Japan	Mexico	West Germany	Brazil <u>3/</u>
Raw materials:						
Availability-----	-	S	S	S	S	S
Cost-----	-	F	S	F	S	F
Fuel:						
Availability-----	-	S	S	S	S	F
Cost-----	US	-	-	F	-	-
Capital:						
Availability-----	-	F	F	F	F	F
Cost-----	-	F	F	F	F	F
Ability of industry profits to attract capital-----	-	S	F	F	F	F
Labor:						
Availability-----	-	S	F	F	F	F
Cost-----	-	F	F	F	F	F
Technology-----	-	F	S	S	S	F
Marketing:						
Channels of distribution-----	US	-	-	-	-	-
Responsiveness to orders-----	US	-	-	-	-	-
After-sale service capabilities-----	US	-	-	-	-	-
Government involvement:						
Subsidies-----	-	F	F	F	F	F
Research and development-----	US	F	S	-	F	F
Tariff levels-----	-	F	F	S	F	F
Nontariff barriers-----	-	F	F	F	F	F
Regulation-----	-	F	F	F	F	F

1/ Data supplied by 7 U.S. producer firms for Italy, 6 firms for Japan, 3 firms for Mexico, and 1 firm each for West Germany and Brazil.

2/ F = Foreign advantage; U.S. = domestic advantage; and S = competitive position the same.

3/ Data for glazed nonmosaic tile only.

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

Table 19.--Ceramic floor and wall tiles, all types; U.S. producers' competitive assessments 1/ of product-related factors of competition for the U.S.-produced and foreign-made tiles in the U.S. market, 1982

Item	Competitive advantage <u>2/</u>					
	United States	Italy	Japan	Mexico	West Germany	Brazil <u>3/</u>
Overall competitive advantage-----	US :	F :	F :	F :	F :	-
Price-----	- :	F :	F :	F :	F :	F
Quality-----	US :	- :	- :	- :	S :	-
Aesthetic appeal-----	US :	S :	- :	- :	F :	-
Terms of sale-----	- :	F :	F :	F :	F :	F
Overall availability-----	US :	- :	- :	S :	F :	-
Variety-----	US :	F :	- :	- :	F :	-
Availability of matching trim-----	US :	- :	- :	- :	S :	-
Accessibility of distribution outlets--	US :	- :	S :	S :	S :	S
Prompt delivery of inventoried items-----	US :	- :	- :	S :	S :	-
Short leadtimes for noninventoried items--	US :	- :	- :	- :	S :	-
Technical assistance availability-----	US :	- :	- :	S :	S :	-
Warranties-----	US :	- :	- :	S :	S :	-
Historical supplier relationship-----	US :	- :	- :	- :	S :	-

1/ Data supplied by 7 U.S. firms for Italy and Japan, 3 firms for Mexico, and 1 firm for West Germany and Brazil.

2/ F = Foreign advantage; U.S. = domestic advantage; and S = competitive position the same.

3/ Data for glazed nonmosaic tiles only.

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

Table 20.--Ceramic floor and wall tiles, all types: U.S. importers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and foreign-made tiles in the U.S. market, 1982

Item	Competitive advantages <u>2/</u>				
	United States	Italy	Japan	West Germany	Korea
Overall competitive advantage-----	US :	F :	S :	- :	F
Price-----	US :	F :	- :	- :	F
Quality-----	US :	- :	F :	F :	-
Aesthetic appeal-----	- :	S :	F :	F :	-
Terms of sale-----	US :	- :	- :	S :	S
Overall availability-----	US :	- :	- :	- :	-
Variety-----	US :	F :	F :	F :	-
Availability of matching trim-----	US :	- :	- :	F :	-
Accessibility of distribution outlets--	US :	- :	- :	F :	-
Prompt delivery of inventoried items-----	US :	- :	- :	S :	-
Short leadtimes for noninventoried items--	US :	- :	- :	- :	-
Technical assistance availability-----	US :	- :	- :	S :	-
Warranties-----	US :	- :	- :	F :	-
Historical supplier relationship-----	US :	- :	F :	- :	-

1/ Data supplied by 2 U.S. importer firms for Italy, 4 firms for Japan, 2 firms for West Germany, and 1 firm for Korea.

2/ F = Foreign advantage; U.S. = domestic advantage; and S = competitive position the same.

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

firms gave the foreign industries the edge by a much greater margin. <sup>1/</sup> Importers and U.S. producers agree that the U.S. industry has the competitive advantage in most areas of product availability (except variety) and marketing-related factors, including technical assistance and warranties. However, the suggested lower price of glazed tile imports, coupled with the apparent edge for foreign-made glazed tiles in aesthetic appeal, are apparently more crucial in determining overall competitive advantage in this more highly price sensitive segment of the ceramic tile market. On the basis of questionnaire responses, Italy was identified as having a significant advantage in price, and the concentration of U.S. tile imports from Italy in the glazed nonmosaic tile category, which represented 93 percent of total U.S. ceramic tile imports in 1982, appears to reflect this price advantage.

U.S. producers report that they most commonly responded to import competition in the U.S. market by implementing cost-reduction efforts, upgrading plant and equipment, and improving the quality of their tiles (table 21). The noted high levels of U.S. capital expenditures during 1978-82 suggest that the U.S. industry devoted considerable resources to improving its competitive position relative to imports, but the \$40 million level of foreign-produced tiles imported by U.S. producers in 1982 suggests that the domestic industry may be relying to an increasing degree on imports to remain competitive and round out its product line.

#### Raw Materials, Capital, and Labor Availability and Cost

Although U.S. producers reported that foreign industries generally had competitive advantages over the U.S. industry in these factors of competition in 1982, U.S. producers maintained comparability with foreign industries in the area of raw material availability in 1982. Additional information tends to support this position.

Tiles are believed to be produced largely from indigeous materials found in most countries. Clays are the primary raw materials, and world clay reserves are relatively large and geographically dispersed. This is also true for other common tile ingredients such as feldspar, flint, talc, pyrophyllite, wollastonite, and lime.

The United States is virtually self-sufficient in clays. It has some of the largest and highest quality clay deposits in the world and is the world's largest producer of a number of types of clay. U.S. production of clays was estimated at 37 million short tons in 1982, with U.S. imports of 24,000 short tons, valued at \$5 million, in the same year. There is considerable demand for U.S.-produced clays in foreign markets, and U.S. exports of clays, which totaled almost 3 million short tons and were valued at \$294 million in 1982, accounted for 7 percent of U.S. production (on the basis of quantity) in 1982.

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<sup>1/</sup> See app. K for U.S. producers' and importers' competitive assessments of glazed nonmosaic tiles, total and by country, and U.S. producers' reasons for importing glazed nonmosaic tiles.

Table 21.--Ceramic floor and wall tiles: U.S. producers' responses to import competition in the U.S. market, 1978-82 1/

Nature of response	Percentage of responses
	<u>Percent</u>
Your firm took no or few actions because your firm--	
Did not encounter significant import competition for the tile produced by your firm-----	9
Lacked capital funds to counter import competition-----	18
Could not devise a cost-effective plan to counter import competition-----	27
Other-----	-
Your firm took the following actions:	
Reduced or dropped plan to expand capacity-----	36
Cutback production of tile-----	64
Closed production lines or plants manufacturing tile-----	45
Sold plants manufacturing tile-----	-
Opened new plants manufacturing tile-----	27
Revised your product line of tile-----	55
Implemented cost-reduction efforts-----	91
Upgraded plant and equipment-----	82
Improved the quality of your tile-----	73
Imported tile-----	55
Other-----	-

1/ Data supplied by 7 firms, which accounted for 67 percent of U.S. producers' shipments in 1982 (on the basis of quantity).

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

Tiles are believed to be produced largely from the most abundant forms of clays. In the United States, the use of common clay and shale in the tile industry is increasing, while the use of less abundant and more expensive clays such as kaolin is decreasing. The share of clays consumed in the tile industry represented by common clay and shale increased by 5 percentage points (on the basis of quantity) during 1978-81 to 70 percent in 1981 (table 22).

Table 22.--Ceramic floor and wall tiles: Clays consumed in the U.S. tile industry, by types, 1978-81

Item	1978	1979	1980	1981
Quantity (short tons)				
Common clay and shale-----	297,829	299,947	364,593	229,846
Ball clay-----	113,744	113,440	90,588	82,116
Kaolin-----	36,523	27,320	23,203	17,860
Other-----	12,950	1,660	1,160	600
Total-----	461,046	442,367	479,544	330,422
Percent of total				
Common clay and shale-----	64.6	67.8	76.0	69.6
Ball clay-----	24.7	25.6	18.9	24.9
Kaolin-----	7.9	6.2	4.8	5.4
Other-----	2.8	.4	.2	.2
Total-----	100.0	100.0	100.0	100.0

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

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

In their questionnaire responses, the majority of U.S. producers indicated that foreign industries had an overall competitive advantage compared to the U.S. ceramic tile industry in raw-material costs in 1982, but raw-material costs are relatively low in the tile industry. The necessary raw materials are relatively crude products, some of which may be mined from deposits located at, or relatively near to, the plant site. Such crude materials require considerable value-added expenses to transform them into tiles. The significance of material costs in the U.S. tile industry remained relatively stable during 1978-81. Material costs, on the basis of official statistics of Commerce, represented 37 percent of the value of shipments for the U.S. tile industry in 1981, compared with 59 percent for all operating U.S. manufacturing establishments, as shown in the following tabulation (material costs expressed as a share of the value of shipments):

	<u>U.S. tile industry 1/ (Percent)</u>	<u>All operating U.S. manufacturing establishments (Percent)</u>
1978-----	36.5	57.6
1979-----	39.8	57.8
1980-----	37.2	59.0
1981-----	36.6	59.2

1/ Data represent all U.S. firms classified in the ceramic floor and wall tile industry, SIC No. 3253.

Fuel accounts for an estimated 12 percent of the U.S. industry's material costs, and certain U.S. tile producers have voiced complaints in recent years about availability problems encountered with natural gas, which is the industry's preferred fuel for the manufacture of tiles. U.S. producers indicated in their questionnaire responses that U.S. and foreign fuel availability were the same in 1982, but the U.S. industry had competitive advantages over foreign industries in fuel cost. Data provided by the Department of Energy tends to support this position, as shown in the following tabulation:

<u>Average prices for natural gas in the industrial sector, April-June 1982 (per 1,000 cubic feet)</u>	
United States-----	\$3.61
Italy-----	5.14
Japan-----	5.82
Canada-----	2.63
United Kingdom-----	4.13

Changes in the current status of natural gas availability and cost may occur in the near future in both the United States and Europe. In the United States, the proposed deregulation of natural gas prices could possibly increase the availability of natural gas to U.S. tile producers, but could also possibly increase natural gas costs. In Europe, completion of the U.S.S.R.'s natural gas pipeline from Siberia to Europe could possibly increase the availability and reduce the cost of natural gas for European tile producers.

U.S. producers indicated in their questionnaire responses that foreign industries had the overall competitive advantages in all three capital factors: availability, cost, and the ability of industry profits to generate capital in 1982. Although financing reportedly is available to tile producers



throughout the world from equipment manufacturers, capital availability is important in the tile industry because of its above-average capital requirements. In 1976, U.S. tile industry assets were valued at an amount equal to 64 percent of the value of industry shipments, compared with an equivalent figure of 34 percent for all U.S. manufacturing establishments. U.S. producers responding to the Commission's questionnaire indicated a 72-percent drop in their capital expenditures during 1981 and 1982, but this decline appears most directly attributable to the relatively high level of capital expenditures sustained by these firms during 1978-81, rather than a decline in capital availability during 1981 and 1982. Questionnaire data indicate that capital expenditures by U.S. producers equaled 11 percent <sup>1/</sup> of the value of U.S. producers' shipments during 1978-81, compared with 4 percent for all operating U.S. manufacturing establishments. This relatively high level of capital expenditures suggests that capital was readily available to U.S. producers during 1978-82.

Based on long-term interest rate data published by the Organization for Economic Co-operation and Development, the overall cost of capital would appear to be higher in the United States than in several other tile-producing nations (table 23).

Table 23.--Ceramic floor and wall tiles.--Long-term interest rates, by countries, 1978-82

(In percent per annum)						
Country	1978	1979	1980	1981	1982	
United States-----	8.43	9.64	11.49	13.72	10.55	
Italy-----	13.04	14.00	16.23	21.39	19.90	
Japan-----	6.10	8.64	9.41	7.93	7.50	
West Germany-----	6.30	7.90	8.90	9.70	7.90	
Canada-----	9.68	11.32	12.67	15.27	11.69	
France-----	10.04	12.14	14.71	17.00	15.71	
United Kingdom-----	12.34	11.75	12.14	13.89	10.20	

Source: Compiled from data of the Organization for Economic Co-operation and Development.

The cost of capital increased in the United States during 1978-82. Data compiled by the Federal Reserve Board show that, the average prime interest rate charged by banks in the United States roughly doubled during 1978-81, before declining in 1982, as shown in the following tabulation (in percent):

<sup>1/</sup> Based on data supplied by six U.S. producers providing both the value of their capital expenditures and shipments for 1978-81.

Prime interest rate

1978-----	9.06
1979-----	12.67
1980-----	15.27
1981-----	18.87
1982-----	14.86

Based on the above average level of capital expenditures by U.S. producers during 1978-81, the growth of U.S. interest rates during 1978-82 apparently did not deter U.S. producers' capital expenditures, although further capital expenditures may have been made without the high level of interest rates during the period.

A comparison of the ratio of the average profit per dollar of sales before taxes for U.S. tile producers (questionnaire responses) and U.S. durable manufacturing corporations (official statistics of Commerce) is shown in the following tabulation (in percent):

	<u>U.S. tile producers 1/</u>	<u>Durable manufacturing corporations</u>
1978-----	12.3	9.1
1979-----	12.0	8.4
1980-----	11.3	6.4
1981-----	10.0	6.8
1982-----	8.8	3.8

1/ There were 7 firms, which accounted for 67 percent of U.S. producers' shipments in 1982 (on the basis of quantity), that provided financial data in response to the Commission's questionnaire.

Thus, the ratio for the U.S. tile industry was above the average for U.S. durable manufacturing corporations during 1978-1982. These profit figures and the above-average level of capital expenditures by U.S. tile producers during 1978-81, suggest that the U.S. tile industry profits were sufficient to attract capital during 1978-82.

U.S. producer's responses to the Commission's questionnaire indicated that foreign industries had competitive advantages in labor availability and cost in 1982. Tile production requires relatively unskilled labor, which is readily available in most areas, and the tile industry has long been considered a relatively labor-intensive industry. Productivity improvements are reducing the U.S. industry's degree of dependence on labor and have been accompanied by decreased employment in the industry. On the basis of questionnaire responses, U.S. producers' productivity increased by 6 percent during 1978-82, as shown in the following tabulation (in square feet per hour worked):

Productivity 1/

1978-----	23.2
1979-----	23.0
1980-----	24.2
1981-----	23.6
1982-----	24.7

1/ There were 7 firms, which accounted for 67 percent of U.S. producers' shipments in 1982 (on the basis of quantity), that provided productivity data in response to the Commission's questionnaire.

Total employee payroll as a share of value added by manufacture in the U.S. tile industry, which remained at 50 percent or more during 1963-77, fell below 45 percent in 1978. A comparison of the employee payroll/value-added-by-manufacture ratios for the U.S. tile industry and all operating U.S. manufacturing establishments, on the basis of official statistics of Commerce, indicates continued improvement in the U.S. tile industry in this area during 1978-81, as shown in the following tabulation (in percent):

	<u>U.S. tile producers 1/</u>	<u>All operating U.S. manufacturing establishments</u>
1978-----	44.9	41.3
1979-----	46.7	39.9
1980-----	42.5	40.9
1981-----	40.2	40.8

1/ Data represent all U.S. firms classified in the ceramic floor and wall tile industry, SIC No. 3253.

Workers in the U.S. tile industry tend to be relatively unskilled and nonunionized. Of the 24 plants operated by firms responding to the Commission's questionnaire, data show that production and related workers were not unionized in 16 (67 percent) of the plants. A comparison of wages paid to production workers in the U.S. tile industry (from questionnaire response) and wages paid in all operating U.S. manufacturing establishments (from official statistics of Commerce) indicates that production workers in the U.S. tile industry are receiving wages below the average for U.S. manufacturing establishments, as shown in the following tabulation (per hour):

	<u>U.S. tile producers 1/</u>	<u>All operating U.S. manufacturing establishments</u>
1978-----	\$4.94	\$6.37
1979-----	5.34	6.81
1980-----	5.85	7.41
1981-----	6.42	8.09
1982-----	6.83	2/

1/ Data represent all U.S. firms classified in the ceramic floor and wall tile industry, SIC No. 3253.

2/ Not available.

### Technology

Although U.S. producers indicated in questionnaire responses that they maintained a comparable position with foreign tile industries relative to technology in 1982, the United States appears to trail some countries in the application of production technology. The seven producer respondents indicated that, for the most part, the United States is not a world leader in production technology for ceramic floor and wall tiles. Italy was most commonly cited by U.S. producers as possessing the most advanced production technology for tiles, as shown in the following tabulation (times cited):

	<u>Number</u>
Italy-----	6
West Germany-----	5
Japan-----	2
Spain-----	2
United States-----	1

The U.S. industry's above-average capital expenditures during 1978-82 are believed to have improved the overall quality of the U.S. industry's production technology. Firms built new plants and upgraded old facilities. Roller-hearth kilns, which reportedly offer substantial advantages in the production of certain tiles, were installed by a number of firms. The vast majority of glazed nonmosaic tiles (the largest tile category) produced by the U.S. industry in 1982 were manufactured by the newer, one-fire method, which reportedly can double productivity over the older, two-fire method. With all these various improvements, productivity in the U.S. tile industry increased to roughly 49,000 square feet per production worker per year in 1982, based on questionnaire responses. However, based on estimated equivalent figures of 50,000 to 120,000 square feet attributed to Italian producers, U.S. production technology needs further improvement to become competitive. Technology is readily available for the tile industry. Such information is largely disseminated by equipment manufacturers serving the industry, but professional society meetings and papers and trade journals also aid in this function.

## Marketing

U.S. producers indicated in their questionnaire responses that the U.S. industry had competitive advantages over foreign tile industries in most facets of marketing in 1982: channels of distribution, responsiveness to orders, and after-sale service capabilities. Although this U.S. competitive advantage appears to be confirmed by importer evaluations of competitive factors, U.S. producers' responses in marketing are believed to be limited to the U.S. market. U.S. exports represent a relatively small share of U.S. producers' shipments (4 percent in 1982, on the basis of quantity), and the marketing efforts of U.S. producers are believed to be concentrated within the United States.

Foreign industries are known to make extensive marketing efforts outside of their domestic markets, and the United States is frequently the focus of such efforts. Both individual firms and collective groups of firms may undertake such marketing efforts. Individual firms often open U.S. subsidiaries to market their tiles. Groups of producers from a single country may pool their resources to promote their products; Italian firms presently spend about \$600,000 annually promoting Italian-produced tiles in the U.S. market.

In the United States, U.S. producers have a three-channel method of distribution. They sell from factory locations to marketers of tiles (primarily to distributors, but also to other U.S. producers and retail outlets) and to users of tiles (primarily contractors). They also sell tiles from firm-owned warehouse/sales facilities located throughout the country. U.S. producers maintain an extensive number of such facilities, and they number in the hundreds.

On the basis of questionnaire responses from seven firms, the relative significance of these three channels of distribution is indicated by the amount of U.S. shipments that they accounted for in 1982, as shown in the following tabulation (in percent):

Factory sales to marketers of tile: distributors, other U.S. producers, and retail outlets-----	46
Factory sales to users of tiles: contractors and other-----	23
Sales from U.S.-producer-owned warehouse/sales facilities-----	<u>31</u>
Total-----	100

With such a relatively diversified distribution system and good geographic coverage of the United States by either plants or warehouse/sales facilities, U.S. producers are believed to be in an excellent position both to respond to orders and to provide after-sale service.

## Government Involvement

Without exception, U.S. producers alleged that foreign industries had a competitive advantage in governmental subsidies. The U.S. industry initiated a countervailing duty investigation against U.S. imports from Mexico as benefit-

ing from Government subsidies in 1981, which culminated in the imposition of countervailing duties of 15.84 percent ad valorem in 1982. Industry representatives have also specifically voiced concern over the alleged subsidy programs of Italy and Brazil. Export subsidies were cited for both countries. Also mentioned was an Italian program to pay workers' salaries during periods of work reduction or plant shutdown. This program allegedly assists Italian tile producers in maintaining high and efficient capacity utilization. Representatives of the Italian industry maintain that this program is similar to unemployment compensation in the United States and does not constitute a subsidy.

With respect to government involvement in supporting research and development efforts in the ceramic floor and wall tile industry, U.S. Government activity in ceramic tiles is minimal. U.S. producers indicated that foreign industries largely had a competitive advantage in this area.

Available information on tariffs suggests that the United States has relatively high tariffs on tiles, compared with other major tile-consuming nations. Individual U.S. rates of duty on tiles were all in excess of 20 percent ad valorem during 1978-82, and calculated U.S. duties on total U.S. tile imports in 1982 equaled 21.1 percent of the value of U.S. imports. This figure has to be revised downward before it can be compared with foreign rates of duty, since U.S. and foreign tariffs are applied against imports on a different value basis. U.S. rates of duty are applied against the Customs value of imports, which does not include charges for freight, insurance, and other charges incurred in transporting merchandise from the port of exportation to the port of importation. Foreign rates of duty are commonly applied against the c.i.f. value of imports, which does include such charges. Since foreign tariffs are applied against the cost of freight, insurance, and so forth, and U.S. tariffs are not, numerically equivalent foreign and U.S. tariff rates are not actually equal. The foreign rate is a higher effective rate, yielding a higher level of duty collected (in absolute terms) for a given rate. Based on calculated U.S. duties on tiles in 1982 and the c.i.f. value of U.S. imports in that year, the United States had the equivalent of a 18 percent ad valorem rate on a c.i.f. value basis.

U.S. exports of tiles to European countries known to use the c.i.f. value basis, such as Italy, West Germany, France, and the United Kingdom, were subject to rates of duty of no more than 15 percent ad valorem in 1981. U.S. exports to Japan, which is believed to use the c.i.f. basis, were subject to tariffs of less than 4 percent ad valorem in 1982. Duties on U.S. exports to Mexico were reported to be in excess of 75 percent ad valorem in 1982, making Mexico's c.i.f. value status immaterial.

U.S. producers indicated that foreign industries had a competitive advantage in nontariff barriers to imports. Industry representatives specifically cited Mexico's imposition of licensing restrictions on the importation of tiles into Mexico and recently adopted and pending EC standards for tiles as nontariff barriers to U.S. tiles. The United States also has standards for tiles (ANSI A 137.1-1980), but the U.S. industry apparently does not consider them a nontariff barrier to imports. Representatives of EC producers maintain that the recently adopted and pending standards do not constitute nontariff barriers.

Government regulation (e.g., environmental and worker-health-and-safety regulations) was perceived by U.S. producers to be a major competitive advantage of foreign industries. Foreign industries are comparatively less encumbered by domestic regulations, and U.S. producers have voiced complaints about the increasing financial burden of meeting U.S. regulatory requirements, which industry representatives believe puts the U.S. industry at a competitive disadvantage.

### Price

A major reason for the importance of price as a competitive factor is the concentration of tile consumption in the residential construction market. The increasing cost of capital in the United States during 1978-82 forced U.S. purchase prices and mortgage rates for residential units upward, and increasingly out of the reach of potential U.S. buyers. In such circumstances, builders are often forced to minimize their own raw material costs to moderate the growth of their prices to consumers. In the case of tiles, builders may opt for either the lowest priced tiles or alternate materials with lower installed costs.

U.S. producers and importers rated each other's products as having a price advantage in the U.S. market in 1982. The low price of foreign-made tiles was cited in 78 percent of producer responses as a significant reason for importing tiles. U.S. importers indicated that U.S.-produced tiles had an overall price advantage in that year. A comparison of average unit value data <sup>1/</sup> for U.S. producers' shipments and imports on a c.i.f., duty-paid basis (which is believed to give a truer picture of import costs than Customs value data) tends to support the U.S. producers' position. These data from official statistics of Commerce suggest that foreign-made tiles enjoyed a price advantage over U.S.-produced tiles during 1978-82, as shown in the following tabulation (per square foot):

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
U.S. producers' shipments-----	\$0.86	\$0.95	\$1.04	\$1.19	\$1.20
U.S. imports-----	.65	.74	.94	1.02	.90
U.S. import advantage--	.21	.21	.10	.17	.30

On a country basis, only U.S. imports from West Germany and France tend to regularly exceed the average unit values of U.S. producers' shipments (table 24).

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<sup>1/</sup> Comparable price data are difficult to obtain for tile because of their high degree of product variation. This high degree of product variation also reduces the usefulness of average unit value data. Variations in product mix can distort average unit value data for tiles, and such data should be used with caution.

Table 24.--Ceramic floor and wall tiles: Average unit values of U.S. imports on a c.i.f., duty-paid basis, by countries, 1978-82

Country	1978	1979	1980	1981	1982
Italy-----	\$0.63	\$0.80	\$1.14	\$1.17	\$0.96
Japan-----	.80	.81	1.02	1.18	1.00
Mexico-----	.57	.64	.74	.78	.58
Greece-----	.54	.59	.66	.70	.73
Spain-----	.55	.56	.55	.88	.78
West Germany-----	1.28	1.35	1.35	1.04	1.18
Canada-----	1.11	.44	.78	.87	.81
Brazil-----	.64	.66	.65	.75	.74
France-----	1.34	.49	1.85	1.09	1.61
The United Kingdom-----	.33	.47	.47	.48	1.21
All other-----	1.34	.49	1.85	1.09	1.61
Total-----	.65	.74	.94	1.02	.90

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

Exchange rates tended to benefit foreign industries during 1978-82. The currencies of all 10 major suppliers of U.S. imports in 1982 posted overall declines against the U.S. dollar during 1978-82, strengthening the competitive positions of their respective tile industries relative to the U.S. tile industry. A review of indices for U.S. exchange rates with these countries and average unit values of U.S. imports from these countries (on a c.i.f. duty-paid basis) during 1978-82 (table 25), suggests that the depreciation of these currencies against the U.S. dollar did not result in a corresponding reduction in the average unit values of imports in the U.S. market during this period. This suggests that the savings that the devaluation of their currencies against the U.S. dollar afforded foreign producers were largely either offset by increased costs or used to increase profits.

#### Quality

U.S. producers and importers disagreed in their overall competitive assessments on quality, each ranking their own products as having the competitive edge in quality in the U.S. market in 1982. Tile quality can vary considerably. In the United States, the ANSI standard for tiles (ANSI A 137.1 - 1980) provides buyers with an indication of product quality. Tiles labeled as meeting the ANSI standard assure the buyer of a product with certain appearance and performance characteristics. Such uniformity is not always available from foreign tile industries.

Questionnaire responses on shipments by grade provide some insight in this area. Data on domestic shipments by grade in 1982 was provided to the Commission by seven producer respondents. Their responses showed that 92 percent of U.S. producers' shipments were of standard grade (the highest grade) in 1982. Similar data was provided by five importer respondents.



Table 25.--Ceramic floor and wall tiles: Indices of U.S. exchange rates 1/ and average unit values 2/ of U.S. imports for selected foreign countries, 1978-82

(1978=100)						
Country	1978	1979	1980	1981	1982	
Exchange rates						
Italy-----	100	102	99	75	63	
Japan-----	100	96	92	94	84	
Mexico-----	100	100	99	93	31	
Korea <u>3/</u> -----	100	100	71	67	62	
Spain-----	100	114	107	83	69	
West Germany-----	100	109	110	89	83	
Canada-----	100	97	97	95	92	
Brazil-----	<u>3/</u> 100	<u>3/</u> 49	<u>3/</u> 32	23	12	
France-----	100	106	107	83	68	
The United Kingdom-----	100	111	121	106	91	
Average unit values <u>3/</u>						
Italy-----	100	127	181	186	152	
Japan-----	100	101	128	148	125	
Mexico-----	100	112	130	137	102	
Korea-----	100	109	122	130	135	
Spain-----	100	102	100	160	142	
West Germany-----	100	105	105	81	92	
Canada-----	100	40	70	78	73	
Brazil-----	100	103	102	117	116	
France-----	100	37	138	81	120	
The United Kingdom-----	100	142	142	145	<u>4/</u> 367	

1/ Based on cents per unit of foreign currency.

2/ On a c.i.f., duty-paid basis.

3/ Compiled from official statistics of the U.S. Department of Commerce.

4/ A major shift in product mix is believed responsible for the magnitude of this increase.

Source: Compiled from official statistics of the Board of Governors of the Federal Reserve System, except as noted.

Their responses showed that 100 percent of U.S. import shipments were of standard grade in 1982. In addition, quality was cited in 71 percent of U.S. producers' responses as a significant factor in their decision to import. On balance, shipments by grade data and U.S. producers' reasons for importing tend to support the importers' position that foreign-made tiles appear to have had a competitive advantage in terms of quality over U.S.-produced tiles in the U.S. market in 1982.

#### Aesthetic Appeal

U.S. producers and importers ranked their own products as having the overall competitive advantage in aesthetic appeal. Although it is difficult to reconcile whether U.S.-produced or foreign-made tiles possess this advantage in the U.S. market, 86 percent of U.S. producer responses cited aesthetic appeal as a significant factor in their decision to import tiles in 1982. These data suggest that certain imported tiles have an advantage in this important competitive area.

#### Terms of Sale

Terms of sale is another factor of competition where U.S. producers and importers rated each other's products as having the competitive advantage in the U.S. market. The questionnaire responses indicate that U.S. producers have a competitive advantage over foreign-made tiles in the area of discounts in the U.S. market in 1982. U.S. producers frequently offered prompt-payment discounts and also offered quantity, distributor, and contractor discounts, whereas foreign suppliers offered no such discounts to U.S. importers. Foreign-made tiles had a competitive advantage in the length of time in which the net (payment) was due. Foreign suppliers most commonly required the net due in no more than 90 days, while all U.S. producers required the net due in 30 days or less. Overall, terms of sale were cited in 71 percent of U.S. producer responses to the questionnaire as a significant factor in their decision to import. These data suggest that certain imported tiles have an advantage in this competitive area.

#### Availability of Ceramic Tiles

In their questionnaire responses, U.S. producers and importers agree that U.S.-produced tiles had a competitive advantage in overall availability in the U.S. market in 1982. Questionnaire responses further indicate that inventory may be a significant contributing factor to the U.S. product's advantage in this area. U.S. producers and importers indicated to the Commission in their questionnaire responses that they primarily manufacture or import tiles for inventory, respectively, with sales typically made from inventory on hand. Thus, the ability to supply orders from inventory has competitive significance. In this regard, U.S. producers are believed to have a competitive advantage in the size of orders that they are able to fill from inventory. In the Commission's questionnaires, both U.S. producers and importers were requested to list the typical size of their orders for a specific tile (e.g., specific color, shape, and size) in 1982; they were also

asked to list the size of their largest order for a specific tile in that year. Such data were supplied by seven producer and five importer respondents. Averages of these figures show U.S. producers with an advantage in both areas, as shown in the following tabulation (in square feet):

	<u>U.S. producers</u>	<u>U.S. importers</u>
Typical size of order---	4,377	318
Size of largest order---	19,636	7,533

### Variety

U.S. producers and importers rated their own products as having the competitive advantage in variety in the U.S. market in 1982. Additional information tends to support the importers' position. The variety of foreign-made tiles was cited in 64 percent of producer responses as significant factor in their decision to import. Questionnaire responses also indicate that U.S. producers' shipments of mosaic tiles were limited to unglazed nonspecialties in 1982, whereas Commerce's statistics show that U.S. imports included specialties and glazed and unglazed nonspecialties in that year. In glazed nonmosaic tiles, questionnaire responses show that a single size (roughly 4-1/4" x 4-1/4") accounted for about 83 percent of U.S. producers shipments in 1982, however, they show that the sizes of U.S. imports were much more diversified.

### Availability of matching trim

Based on questionnaire responses, U.S. producers and importers agree that U.S.-produced tiles had a competitive advantage in the availability of matching trim over foreign-made tiles in the U.S. market in 1982. Additional data requested in the Commission's questionnaires tend to confirm this position. Both U.S. producers and importers were requested to indicate the percentage of their shipments that was represented by trim in 1982. Data submitted by seven U.S. producer and five U.S. importer respondents show that trim accounted for a higher share of U.S. producers' shipments than for shipments of U.S. importers, as shown in the following tabulation:

	<u>Share of shipments represented by trim in 1982 (percent)</u>
U.S. producers-----	9.0
U.S. importers-----	4.5

### Accessibility of distribution outlets and prompt delivery

Both U.S. producers and importers agree that U.S.-produced tiles had overall competitive advantages in the accessibility of distribution outlets and in prompt delivery of inventoried items over foreign-made tiles in the

U.S. market in 1982. U.S. producers and importers also agreed that U.S.-produced tiles had an overall competitive advantage in short leadtimes for noninventoried items over foreign-made tiles in the U.S. market in 1982. Additional data requested in the Commission's questionnaires confirm this position. Both U.S. producers and importers were requested to provide the Commission with their typical leadtime in 1982 to supply a item that was not available from inventory. Leadtime data was supplied by seven producer and five importer respondents. A composite of their data shows that U.S. producers were able to supply, on the average, noninventoried items 8 weeks sooner than U.S. importers, as shown in the following tabulation (in weeks):

	<u>Leadtime necessary to supply noninventoried items in 1982</u>
U.S. producers-----	4
U.S. importers-----	12

#### Technical Assistance Availability, Warranties, and Historical Supplier Relationship

U.S. producers and importers agree that U.S.-produced tiles had overall competitive advantages in technical assistance availability and warranties over foreign-made tiles in the U.S. market in 1982. This appears to be consistent with the acknowledged advantages of the United States in marketing capability cited by both importers and producers. Both U.S. producers and importers indicate that historical supplier relationship provides a competitive advantage in their respective tile sales in the U.S. market in 1982.

**APPENDIX A**  
**NOTICE OF THE COMMISSION'S INVESTIGATION**

from interested members of the public and other Government agencies. 47 FR 53147. No comments were received. On February 18, 1983, the Commission granted the joint motion, adopting the consent order and terminating the investigation as to respondent Voplex.

**SUPPLEMENTARY INFORMATION:** As Voplex and Happich were the only remaining respondents in investigation No. 337-TA-117, the termination of these two respondents terminated the investigation.

The Commission was conducting investigation No. 337-TA-117 to determine whether there was a violation of section 337 of the Tariff Act of 1930 (19 U.S.C. 1337) in the importation and sale of certain automotive visors, which were alleged to infringe certain claims of U.S. Letters Patent Nos. 3,928,470 and 4,227,241, owned by complainant Prince. The alleged effect or tendency of these unfair acts was to destroy or substantially injure an industry, efficiently and economically operated, in the United States.

Copies of the Commission Action and Orders, the consent orders, and all other nonconfidential documents filed in connection with this investigation are available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 701 E Street NW., Washington, D.C. 20436, telephone 202-523-0161.

**FOR FURTHER INFORMATION CONTACT:** Jane Albrecht, Esq., Office of the General Counsel, U.S. International Trade Commission, telephone 202-523-1627.

By order of the Commission.

Issued: March 4, 1983.

Kenneth R. Mason,  
Secretary.

[FR Doc. 83-6083 Filed 3-8-83; 8:45 am]  
BILLING CODE 7020-02-M

### [332-156]

#### Competitive Assessment of the U.S. Ceramic Floor and Wall Tile Industry

**AGENCY:** United States International Trade Commission.

**ACTION:** In accordance with the provisions of section 332(b) of the Tariff Act of 1930 (19 U.S.C. 1332(b)), the Commission has instituted on its own motion investigation No. 332-156 for the purpose of assessing the competitive position of the U.S. ceramic floor and wall tile industry. Specifically, the Commission will compile and present trade data and other information on the

U.S. industry, identify key competitive factors in domestic and foreign markets, and examine the impact of such factors on the operations and global competitive position of U.S. producers.

**EFFECTIVE DATE:** February 22, 1983.

**FOR FURTHER INFORMATION CONTACT:** Mr. James J. Lukes (telephone 202-523-0279), U.S. International Trade Commission, Washington, D.C. 20436.

**Written Submissions:** While there is no public hearing scheduled for this study, written submissions from interested parties are invited. Commercial or financial information which a party desires the Commission to treat as confidential must be submitted on separate sheets of paper, each clearly marked "Confidential Business Information" at the top. All submissions requesting confidential treatment must conform with the requirements of § 201.6 of the Commission's *Rules of Practice and Procedure* (19 CFR 201.6). All written submissions, except for confidential business information, will be made available for inspection by interested parties. To be ensured of consideration by the Commission, written statements should be received by the close of business on July 1, 1983. All submissions should be addressed to the Secretary at the Commission's office in Washington, D.C.

By order of the Commission.

Issued: March 1, 1983.

Kenneth R. Mason,  
Secretary.

[FR Doc. 83-6049 Filed 3-8-83; 8:45 am]  
BILLING CODE 7020-02-M

### [Investigation No. 337-TA-116]

#### Certain Drill Point Screws for Drywall Construction; Termination of Investigation

**AGENCY:** International Trade Commission.

**ACTION:** Termination of investigation upon a finding of no violation of section 337 of the Tariff Act of 1930.

**SUPPLEMENTARY INFORMATION:** On the basis of a complaint filed on January 20, 1982, the Commission on March 3, 1982, published in the Federal Register (47 FR 9113) a notice of institution of an investigation pursuant to section 337 of the Tariff Act of 1930 (19 U.S.C. 1337). The purpose of the investigation was to determine whether there were unfair methods of competition and unfair acts in the unauthorized importation and sale of certain drill point screws for drywall construction alleged to infringe certain

claims of U.S. Letters Patent 3,463,045 owned by complainant Illinois Tool Works, Inc.

On February 17, 1983, the Commission unanimously determined that there was no violation of section 337 in investigation No. 337-TA-116 in the importation or sale of the drill point screws in question.

Copies of the Commission's Action and Order and all other nonconfidential documents filed in connection with this investigation are available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 701 F Street NW., Washington, D.C. 20436, telephone 202-523-0161.

**FOR FURTHER INFORMATION CONTACT:** Carol McCue Verratti, Esq., Office of the General Counsel, U.S. International Trade Commission, telephone 202-523-0079.

By order of the Commission.

Issued: March 3, 1983.

Kenneth R. Mason,  
Secretary.

[FR Doc. 83-6064 Filed 3-8-83; 8:45 am]  
BILLING CODE 7020-02-M

### [332-158]

#### Effects of Foreign Product Counterfeiting on U.S. Industry

**AGENCY:** International Trade Commission.

**ACTION:** In accordance with the provisions of section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)), the Commission has instituted investigation No. 332-158 for the purpose of assessing the impact of foreign product counterfeiting on U.S. industry, considering both domestic and export markets. The objectives of the investigation are: (1) To identify those product sectors in which the U.S. industry faces competition from foreign counterfeited products, either in the United States or abroad, (2) to assess the impact such counterfeiting has had on these industries and U.S. exports, (3) to identify the primary country sources of counterfeiting, (4) to inventory the methods U.S. firms are using to counteract counterfeiting and their recommendations for government action, and (5) to compile an inventory of U.S. and foreign laws and international agreements encompassing counterfeiting, including the avenues of relief available.

**EFFECTIVE DATE:** February 25, 1983.

**APPENDIX B**

**NOTICE OF THE COMMISSION'S EXTENSION OF THE DEADLINE  
FOR WRITTEN SUBMISSIONS**

nonconfidential documents filed in connection with this investigation are available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 701 E Street NW., Washington, D.C. 20436, telephone 202-523-0161.

**FOR FURTHER INFORMATION CONTACT:** Jack Simmons, Esq., Office of the General Counsel, U.S. International Trade Commission, telephone 202-523-0350.

Issued: July 1, 1983.

By order of the Commission.

Kenneth R. Mason,  
Secretary.

[FR Doc. 83-18351 Filed 7-6-83; 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 337-TA-133]

**Certain Vertical Milling Machines, and Parts, Attachments, and Accessories Thereto; Commission Decision Not To Review an Initial Determination**

**AGENCY:** International Trade Commission.

**ACTION:** Notice is hereby given that the Commission has determined not to review the presiding officer's initial determination, Order No. 23, granting Alliant Machine Tool Corporation's (Alliant) motion to intervene in the above-captioned investigation.

**Authority:** The authority for the Commission's disposition of this matter is contained in section 337 of the Tariff Act of 1930, 19 U.S.C. 1337, and in §§ 210.53(c) and 210.53(h) of the Commission's Rules of Practice and Procedure, 47 FR 20225 (June 10, 1982) and 48 FR 20225 (May 5, 1983); to be codified at 19 CFR 210.53(c) and 210.53(h).

**SUPPLEMENTARY INFORMATION:** On May 31, 1983, the presiding officer issued an initial determination granting Alliant's motion to intervene in the above-captioned investigation and amending the notice of investigation. Under § 210.54(b) of the Commission's Rules of Practice and Procedure, the deadline for filing petitions for review of the initial determination expired on June 9, 1983. No petitions were filed.

Copies of the nonconfidential version of the presiding officer's initial determination, and all other nonconfidential documents filed in connection with this investigation are available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 701 E Street, NW., Washington, D.C. 20436, telephone (202) 523-0161.

**FOR FURTHER INFORMATION CONTACT:** Catherine R. Field, Esq., Officer of the

General Counsel, U.S. International Trade Commission, telephone (202) 523-0375.

Issued: June 30, 1983.

By order of the Commission.

Kenneth R. Mason,  
Secretary.

[FR Doc. 83-18348 Filed 7-6-83; 8:45 am]

BILLING CODE 7020-02-M

[332-156]

**Competitive Assessment of the U.S. Ceramic Floor and Wall Tile Industry**

**AGENCY:** International Trade Commission.

**ACTION:** The Commission is extending the deadline for the filing of written submissions from interested parties in the subject investigation from July 1, 1983 to July 14, 1983. Supplemental submissions from parties having already filed written briefs will be accepted. The initial notice of investigation indicating the scope of the study, contact person, and other related information was published in the Federal Register of March 9, 1983 (48 FR 9968).

Issued: June 24, 1983.

By order of the Commission.

Kenneth R. Mason,  
Secretary.

[FR Doc. 83-18342 Filed 7-6-83; 8:45 am]

BILLING CODE 7020-02-M

[Investigations Nos. 701-TA-179 Through 181 (Final)]

**Hot Rolled Stainless Steel Bar, Cold-Formed Stainless Steel Bar, and Stainless Steel Wire Rod From Brazil Determinations**

On the basis of the record<sup>1</sup> developed in investigations Nos. 701-TA-179 through 181 (Final), the Commission determines, pursuant to section 705(b) of the Tariff Act of 1930 (19 U.S.C. 1671d(b)), that an industry in the United States is materially injured by reason of imports of the following products which have been found by the Department of Commerce to be subsidized by the Government of Brazil:

Hot-rolled stainless steel bar, provided for in item 606.90 of the Tariff Schedules of the United States (TSUS) (investigation No. 701-TA-179 (Final));

Cold-formed stainless steel bar, provided for in item 606.90 of the TSUS (investigation No. 701-TA-180 (Final)).

<sup>1</sup> The record is defined in § 207.2(i) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(i)).

Stainless steel wire rod, provided for in items 607.26 and 607.43 of the TSUS (investigation No. 701-TA-181 (Final)).

**Background**

The Commission instituted these investigations effective December 3, 1983, following preliminary determinations by the United States Department of Commerce that there was a reasonable basis to believe or suspect that subsidies were being provided to the manufacturers, producers, or exporters of certain stainless steel products in Brazil.

On February 2, 1983, Commerce suspended its countervailing duty investigations involving these stainless steel products from Brazil. The basis for the suspension was an agreement by the government of Brazil to offset all export subsidies for the subject products with an equivalent export tax (48 FR 4703). Consequently, the Commission suspended its final countervailing duty investigations on these products from Brazil on February 7, 1983 (48 FR 8875).

On February 22, 1983, counsel for the petitioners notified the Department of Commerce that pursuant to section 704(g) of the Tariff Act of 1930, as amended, they were requesting a continuation of Commerce's countervailing duty investigations of these products from Brazil. Accordingly, on March 7, 1983, Commerce informed the Commission by letter that it had received a request to continue its countervailing duty investigations, and would issue its final determinations on or before May 9, 1983. On the basis of Commerce's letter, the Commission continued its final countervailing duty investigations as of February 22, 1983. Notice of the Commission's continuation of the final investigations and of the 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, D.C., and by publishing the notice in the Federal Register of March 30, 1983 (48 FR 13279).

On May 9, 1983, Commerce made affirmative final subsidy determinations on the products subject to these investigations (48 FR 21610). The Commission's hearing in these investigations was held in Washington, D.C., on May 11, 1983, and all persons who requested the opportunity were permitted to appear in person or by counsel. The Commission voted on the investigations on June 14, 1983. 62

If the final determinations by the Commission in these continued investigations had been negative, then the agreement between Commerce and



**APPENDIX C**

**EXPLANATION OF THE RATES OF DUTY APPLICABLE TO CERAMIC  
FLOOR AND WALL TILES AND SELECTED PORTIONS OF THE  
TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1983)**

Explanation of the rates of duty applicable to ceramic floor and wall tiles

The rates of duty in column 1 are most-favored-nation (MFN) rates, and are applicable to imported products from all countries except those Communist countries and areas enumerated in general headnote 3(f) of the TSUSA. <sup>1/</sup> However, such rates do not apply to products of developing countries which are granted preferential tariff treatment under the Generalized System of Preferences (GSP) or under the "LDDC" column.

The rates of duty in the "LDDC" column are preferential rates (reflecting the full U.S. MTN concession rate for a particular item without staging of duty reductions) and are applicable to products of the least developed developing countries designated in general headnote 3(d) of the TSUSA which are not granted duty-free treatment under the GSP. If no rate of duty is provided in the "LDDC" column for a particular item, the column 1 rate applies.

The rates of duty in column 2 apply to imported products from those Communist countries and areas enumerated in general headnote 3(f) of the TSUSA.

The GSP is a program of nonreciprocal tariff preferences granted by the United States to developing countries to aid their economic development by encouraging greater diversification and expansion of their production and exports. The GSP, implemented by Executive Order No. 11888, of November 24, 1975, applies to merchandise imported on or after January 1, 1976, and is scheduled to remain in effect until January 4, 1985. It provides for duty-free treatment of eligible articles imported directly from designated beneficiary developing countries. Eligible articles are identified in the column marked "GSP" with an "A" or "A\*." The designation "A" means that all beneficiary developing countries are eligible for the GSP, and "A\*" indicates that certain developing countries, specified in general headnote 3(c) of the TSUSA, are not eligible.

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<sup>1/</sup> The only Communist countries currently eligible for MFN treatment are the People's Republic of China, Hungary, Romania, and Yugoslavia.

## TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1983)

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SCHEDULE 5 NONMETALLIC MINERALS AND PRODUCTS  
Part 2 - Ceramic Products

5 - 2 - B

532.11 - 532.61

G S P	Item	Stat. Suf- fix	Articles	Units of Quantity	Rates of Duty		
					1	LDDC	2
			Subpart B statistical headnote.				
			1. For the purposes of this subpart -- (a) a standard brick equivalent (sbe.) shall be calculated on a volumetric basis, based on a brick measuring 2-1/4 inches by 3-5/8 inches by 7-5/8 inches, (b) the term "solid bricks" refers to bricks containing not over 25 percent voids, and (c) the term "hollow bricks" refers to bricks containing over 25 percent voids.				
			Ceramic bricks:				
	532.11		Not coated in whole or in part with engobe, glaze, or enamel.....	M. v	Free		\$1.25 per 1,000
		20	Solid bricks.....	M. sbe.			
		40	Hollow bricks.....	M. v			
A	532.14	00	Coated in whole or in part with engobe, glaze, or enamel.....	M. ....v M. sbe.	1.5% ad val.	Free	6% ad val.
			Ceramic tiles:				
			Floor and wall tiles:				
			Mosaic tiles:				
	532.20		Tiles in bulk (not mounted); and tiles in sheets having per square foot not over 300 tiles, most of which have faces bounded entirely by straight lines.....	Sq. ft.	22.3% ad val.	20% ad val.	55% ad val.
		20	Glazed.....	Sq. ft.			
A*	532.22	00	Other.....	Sq. ft.	22.3% ad val.	20% ad val.	55% ad val.
			Other:				
	532.24	00	Glazed.....	Sq. ft.	21.3% ad val.	19% ad val.	55% ad val.
	532.27	00	Other.....	Sq. ft.	22.7% ad val.	20% ad val.	50% ad val.
A*	532.31	00	Other tiles, including roofing tiles.....	Sq. ft.	13.5% ad val.		55% ad val.
A	532.41	00	Friezes, mantels, and other construction articles, all the foregoing, of ceramic tiles.....	X.....	5.1% ad val.	4.2% ad val.	50% ad val.
A	532.61		Other construction articles.....		6.2% ad val.	4.9% ad val.	30% ad val.
		10	Structural clay tiles.....	Sq. ft.			
		30	Vitrified clay sewer pipe and fittings.....	S. ton			
		80	Other.....	X			
Note: For explanation of the symbol "A" or "A*" in the column entitled "GSP", see general headnote 3(c).							



**APPENDIX D**

**NOTICE OF COMMERCE'S FINAL RESULTS OF ADMINISTRATIVE REVIEW  
AND REVOCATION OF ANTIDUMPING FINDING**

Dated at Washington, D.C., March 22, 1982.

Elias C. Rodriguez,

Chief Administrative Law Judge.

[FR Doc. 82-6170 Filed 3-25-82; 8:45 am]

BILLING CODE 6320-01-M

[Docket 39523]

**Violations of Part 250 Enforcement Proceeding; Trans World Airlines, Inc.; Assignment of Proceeding**

This proceeding has been assigned to Chief Administrative Law Judge Elias C. Rodriguez. Future communications should be addressed to him.

Dated at Washington, D.C., March 22, 1982.

Elias C. Rodriguez,

Chief Administrative Law Judge.

[FR Doc. 82-6169 Filed 3-25-82; 8:45 am]

BILLING CODE 6320-01-M

**DEPARTMENT OF COMMERCE**

**Bureau of the Census**

**Census Advisory Committee of the American Economic Association; Public Meeting**

Pursuant to the Federal Advisory Committee Act (Pub. L. 92-463, as amended by Pub. L. 94-409), notice is hereby given that the Census Advisory Committee of the American Economic Association will convene on April 23, 1982, at 9:15 a.m. in Room 2424, Federal Building 3, at the Bureau of the Census in Suitland, Maryland.

The Census Advisory Committee of the American Economic Association advises the Director, Bureau of the Census, on technical matters, accuracy levels, and conceptual problems concerning the economic censuses; reviews major aspects of the Bureau's programs; and advises on the role of analysis within the Bureau and the need for providing data in more detail.

The Committee is composed of 15 members of the American Economic Association.

The agenda for the meeting, which is scheduled to adjourn at 3:45 p.m., is: 1) Introductory remarks by the Director, Bureau of the Census, including staff changes and major budget program developments; 2) planning for the 1990 census; 3) measurement of in-kind income; 4) plans and direction for the Center for Economic Studies; 5) development of a longitudinal establishment data file; 6) general discussion and Committee recommendations; and 7) plans and date for the next meeting.

The meeting will be open to the public, and a brief period will be set

aside for public comment and questions. Extensive questions or statements must be submitted in writing to the Committee Control Officer at least 3 days prior to the meeting.

Persons planning to attend and wishing additional information concerning this meeting or who wish to submit written statements may contact the Committee Control Officer, Mr. Thomas L. Mesenbourg, Bureau of the Census, Room 3061, Federal Building 3, Suitland, Maryland. (Mail address: Washington, D.C. 20233). Telephone (301) 763-5483.

Dated: March 23, 1982.

Bruce Chapman,

Director, Bureau of the Census.

[FR Doc. 82-6156 Filed 3-25-82; 8:45 am]

BILLING CODE 3510-07-M

**International Trade Administration**

**Canned Bartlett Pears from Australia; Final Results of Administrative Review of Antidumping Finding**

**AGENCY:** International Trade Administration, Commerce.

**ACTION:** Notice of Final Results of Administrative Review of Antidumping Finding.

**SUMMARY:** On January 25, 1982, the Department of Commerce published the preliminary results of its administrative review of the antidumping finding on canned Bartlett pears from Australia. The review covers the four known exporters of this merchandise to the United States and the period October 3, 1978 through February 28, 1981. Interested parties were given an opportunity to submit oral or written comments. We received no comments. As proposed in the preliminary results, the Department waives the requirement of a cash deposit of estimated antidumping duties.

**EFFECTIVE DATE:** March 26, 1982.

**FOR FURTHER INFORMATION CONTACT:**

Patricia H. McClenahan or Robert J. Marenick, Office of Compliance, International Trade Administration, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-3986/2498).

**SUPPLEMENTARY INFORMATION:**

**Background**

On January 25, 1982, the Department of Commerce ("the Department") published in the *Federal Register* (47 FR 3393) the preliminary results of its administrative review of the antidumping finding on canned Bartlett pears from Australia (38 FR 7566, March 23, 1973). The Department has now completed that administrative review.

**Scope of the Review**

Imports covered by the review are canned Bartlett pears, currently classifiable under item 148.8600 of the Tariff Schedules of the United States Annotated (TSUSA). The review covered the four known exporters of the merchandise and the period October 3, 1978 through February 28, 1981. There were no shipments to the United States during the review period and there are no known unliquidated entries.

**Final Results of the Review**

We gave interested parties an opportunity to furnish oral or written comments. We received no comments. Therefore, the final results of our review are the same as those presented in the preliminary results of review.

Since there have been no shipments for over 8 years the Department shall waive the requirement of a cash deposit, as provided for in § 353.48(b) of the Commerce Regulations, on any shipments of canned Bartlett pears from Australia entered, or withdrawn from warehouse, for consumption on or after the date of publication of this notice. This waiver of deposit shall remain in effect until publication of the final results of the next administrative review. The Department intends to conduct the next review by the end of March 1983. The Department encourages interested parties to review the public record and submit applications for protective orders, if desired, as early as possible in the next administrative review.

This administrative review and notice are in accordance with section 751(a)(1) of the Tariff Act of 1930 (19 U.S.C. 1675(a)(1)) and § 353.53 of the Commerce Regulations (19 CFR 353.53).

March 23, 1982.

Gary N. Horlick,

Deputy Assistant Secretary for Import Administration.

[FR Doc. 82-6156 Filed 3-25-82; 8:45 am]

BILLING CODE 3510-25-M

**Ceramic Wall Tile From the United Kingdom; Final Results of Administrative Review and Revocation of Antidumping Finding**

**AGENCY:** International Trade Administration, Commerce.

**ACTION:** Notice of Final Results of Administrative Review and Revocation of Antidumping Finding.

**SUMMARY:** On January 27, 1982 the Department of Commerce published the preliminary results of its administrative review of an intent to revoke the

antidumping finding on ceramic wall tile from the United Kingdom (47 FR 3812). The review covered the one known exporter of this merchandise to the United States covered by the finding and the period January 1, 1980 through March 20, 1981. All sales by this exporter, H & R Johnson, Ltd., were made at not less than fair value for the above period. Interested parties were provided an opportunity to submit written comments or request disclosure and/or a hearing. No comments or requests were received.

**EFFECTIVE DATE:** March 28, 1982.

**FOR FURTHER INFORMATION CONTACT:** Jonathan Seiger or Robert J. Marenick, Office of Compliance, International Trade Administration, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-2704/2496).

**SUPPLEMENTARY INFORMATION:**

**Background**

On May 18, 1971, a dumping finding with respect to ceramic wall tile from the United Kingdom was published in the Federal Register as Treasury Decision 71-129 (36 FR 9009). On March 20, 1981, the Department of Commerce ("the Department") published in the Federal Register the preliminary results of its first administrative review of and tentative determination to revoke the finding (46 FR 17820). On June 11, 1981, the Department published the final results of that administrative review (46 FR 30841). On January 27, 1982, the Department published the preliminary results of its second administrative review and intent to revoke the finding (47 FR 3812).

The Department has now completed its administrative review of the finding. The Department has reviewed information on periods up to and including March 20, 1981, the date of our tentative determination to revoke this finding.

**Scope of the Review**

Merchandise covered by this review is glazed ceramic wall tile, currently classifiable under item 532.2400 of the Tariff Schedules of the United States Annotated (TSUSA). The Department knows of only one exporter of ceramic wall tile from the United Kingdom to the United States still covered by the finding. That firm is H & R Johnson, Ltd. The review covers the period January 1, 1980 through March 20, 1981, the date of the Department's tentative determination to revoke.

**Final Results of Review**

The Department received no comments or requests for disclosure or a

hearing. Therefore, the final results of our review are the same as those presented in the preliminary results of review.

**Determination**

As a result of this review, the Department revokes the antidumping finding on ceramic wall tile from the United Kingdom.

This revocation applies to all unliquidated entries of this merchandise entered, or withdrawn from warehouse, for consumption on or after March 20, 1981. Since all sales by H & R Johnson, Ltd. between January 1, 1980 and March 20, 1981 were made at not less than fair value, the Department shall instruct the Customs Service to liquidate all entries in that period without regard to dumping duties. The Department will issue appraisement instructions directly to the Customs Service.

This administrative review, revocation, and notice are in accordance with sections 751(a)(1) and (c) of the Tariff Act of 1930 (19 U.S.C. 1675(a)(1), (c)) and §§ 353.53 and 353.54 of the Commerce Regulations (19 CFR 353.53, 353.54).

Gary N. Horlick,

*Deputy Assistant Secretary for Import Administration.*

March 23, 1982.

[FR Doc. 82-6189 Filed 3-25-82; 8:45 am]

BILLING CODE 3510-25-M

**Potassium Chloride, Otherwise Known as Muriate of Potash, From Canada; Preliminary Results of Administrative Review of Antidumping Finding**

**AGENCY:** International Trade Administration, Commerce.

**ACTION:** Notice of Preliminary Results of Administrative Review of Antidumping Finding.

**SUMMARY:** The Department of Commerce has conducted an administrative review of the antidumping finding on potassium chloride, otherwise known as muriate of potash, from Canada. The review covers the 16 known producers and/or exporters covered by the finding and varying time periods through November 30, 1980. The review indicates the existence of dumping margins in particular periods for certain exporters.

As a result of this review, the Department has preliminarily determined to assess dumping duties for individual exporters equal to the calculated differences between United States price and foreign market value on each of their shipments during the periods of review. Where company-supplied information was inadequate or

no information was received, the Department has used the best information available. The Department invites interested parties to comment on these preliminary results.

**EFFECTIVE DATE:** March 28, 1982.

**FOR FURTHER INFORMATION CONTACT:** Jonathan Seiger or Robert J. Marenick, Office of Compliance, International Trade Administration, U.S. Department of Commerce, Washington, D.C. 20230 (202-377-2704/2496).

**SUPPLEMENTARY INFORMATION:**

**Background**

On December 19, 1969, a dumping finding with respect to potassium chloride, otherwise known as muriate of potash ("potash"), from Canada was published in the Federal Register as Treasury Decision 69-265 (34 FR 19904). On January 1, 1980, the provisions of title I of the Trade Agreements Act of 1979 became effective. Title I replaced the provisions of the Antidumping Act of 1921 ("the 1921 Act") with a new title VII to the Tariff Act of 1930 ("the Tariff Act"). On January 2, 1980, the authority for administering the antidumping duty law was transferred from the Department of the Treasury to the Department of Commerce ("the Department"). The Department published in the Federal Register of March 28, 1980 (45 FR 20511-12) a notice of intent to conduct administrative reviews of all outstanding dumping findings.

On April 15, 1981, the International Trade Commission ("the ITC") published in the Federal Register its determination that an industry in the United States would not be materially injured, nor threatened with material injury, by reason of imports of potash from Canada if the findings were to be modified or revoked (46 FR 22083-87). As a result, the Department revoked the finding on June 11, 1981 (46 FR 30842), effective on the date of the ITC's injury determination. However, at time of revocation, the Department had not yet reviewed entries made by the 16 known firms covered by the finding for varying periods ending November 30, 1980. As required by section 751 of the Tariff Act, the Department has conducted an administrative review of the finding on potash from Canada. With the exception of merchandise shipped by Texasgulf, Inc. between January 1, 1975 and December 31, 1979, this review completes the examination for all unliquidated entries of this merchandise made by companies still covered by the finding at the time of revocation for those periods.





**APPENDIX E**

**NOTICE OF COMMERCE'S FINAL AFFIRMATIVE COUNTERVAILING DUTY  
DETERMINATION AND COUNTERVAILING DUTY ORDER**

is a resubmission of Docket No. 81-00121 which was denied without prejudice to resubmission for informational deficiencies (April 7, 1981). The foreign article is an accessory which, with its compact size and mountability on a goniometer, permits angle resolved photoemission studies within an existing vacuum chamber. The National Bureau of Standards advises in its memorandum dated February 16, 1982 that (1) the capabilities of the foreign article described above are pertinent to the applicant's intended purpose and (2) it knows of no domestic instrument or apparatus of equivalent scientific value to the foreign article for the applicant's intended use.

The Department of Commerce knows of no other instrument or apparatus of equivalent scientific value to the foreign article, for such purposes as this article is intended to be used, which is being manufactured in the United States.

Frank W. Creel,

*Acting Director, Statutory Import Programs Staff.*

(Catalog of Federal Domestic Assistance Program No. 11.105, Importation of Duty-Free Educational and Scientific Materials.)

[FR Doc. 82-12646 Filed 5-7-82; 8:45 am]

BILLING CODE 3510-25-M

### **Final Affirmative Countervailing Duty Determination; Ceramic Tile From Mexico and Countervailing Duty Order**

**AGENCY:** International Trade Administration, Commerce.

**ACTION:** Final affirmative countervailing duty determination and countervailing duty order.

**SUMMARY:** We have determined that the government of Mexico is providing its manufacturers, producers, and exporters of ceramic tile with benefits that are bounties or grants within the meaning of the countervailing duty law. Future imports of this merchandise will be subject to the assessment of countervailing duties.

**EFFECTIVE DATE:** May 10, 1982.

**FOR FURTHER INFORMATION CONTACT:** Mary Martin, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230, telephone (202) 377-1279.

#### **SUPPLEMENTARY INFORMATION:**

##### **Final Determination**

Based upon our investigation and in accordance with section 705(a) of the Tariff Act of 1930 ("the Act"), we have determined that the government of Mexico provides its manufacturers,

producers, and exporters of ceramic tile certain benefits that are bounties or grants within the meaning of section 303 of the Act. We have determined the net subsidy to be 15.84 percent of the f.o.b. value of the imported merchandise.

#### **Case History**

On October 5, 1981, we received a countervailing duty petition from counsel for the Tile Council of America, Inc., alleging that the government of Mexico is providing bounties or grants to its producers and exporters of ceramic tile. After reviewing the petition we initiated an investigation on October 26, 1981 (46 FR 53738).

On November 2, 1981, we presented a questionnaire to the government of Mexico, at its embassy in Washington, D.C. and requested a response. We determined that the case was extraordinarily complicated. On December 15, 1981, we published a notice of postponement of the preliminary countervailing duty determination (46 FR 61160). We presented a supplementary questionnaire to the government of Mexico on December 29, 1981, and requested a response. The government of Mexico provided a response to each of the questionnaires.

Counsel on behalf of Jesus Garza Arocha ("Arocha"), a manufacturer and exporter of ceramic tile in Mexico, requested exclusion from any preliminary or final determination. The reason cited for the request for exclusion was that Arocha has not applied for or received benefits under the CEDI and CEPROFI programs and, although it received FOMEX benefits during six months of 1980, it has not applied for them since and will not apply for or receive them in the future. On January 29, 1982, the government of Mexico submitted information that Arocha has never requested or received benefits under the CEDI or CEPROFI programs, and that Arocha has received loans during the first seven months of 1980 but has not requested or received any other loan from FOMEX.

The Department of Commerce ("the Department") published a notice in the Federal Register (47 FR 7866) on February 23, 1982, of its preliminary affirmative countervailing duty determination. It stated that we had preliminarily determined that the government of Mexico is providing its manufacturers, producers, and exporters of ceramic tile with benefits that are bounties or grants within the meaning of the countervailing duty law. We estimated the net subsidy to be 17.36 percent of the f.o.b. value of the imported merchandise, and directed the

U.S. Customs Service to suspend liquidation of all entries, or warehouse withdrawals for consumption, of this merchandise and to require a cash deposit, bond or other security in an amount equal to the estimated net subsidy.

On March 10-18, 1982, Department personnel verified in Mexico the government of Mexico's response to our questionnaires. We also verified that Arocha has not applied for or received CEDI and CEPROFI benefits and has not received FOMEX loans since 1980. Accordingly, on April 1, 1982, we notified the U.S. Customs Service to reduce the countervailing duty deposit rate for imports of ceramic tile produced and exported by Arocha to a zero rate.

#### **Scope of Investigation**

The merchandise included in this investigation is ceramic tile, including non-mosaic, glazed and unglazed ceramic floor and wall tile. It is currently classified under items numbers 532.24 and 532.27 of the *Tariff Schedules of the United States*. Section 303 of the Act applies to this investigation because Mexico is not a "country under the Agreement" within the meaning of section 701(b) of the Act. Under the applicable law, no injury determination is required.

#### **Programs Under Investigation**

We have determined that the government of Mexico is providing bounties or grants to its manufacturers, producers, and exporters of ceramic tile under three programs: CEDI, CEPROFI and FOMEX.

#### **The CEDI**

The Certificado de Devolucion de Impuesto ("CEDI") is a tax certificate issued by the government of Mexico in an amount equal to a percentage of the f.o.b. value of the exported merchandise or, if national insurance and transportation are utilized, a percentage of the c.i.f. value of the exported product. The Secretary of Commerce of Mexico is responsible for setting the CEDI rate, which is not published; it is a percentage of the value of the product. Beginning December 1, 1980, the CEDI rate for ceramic tile was raised from 5 percent to 10 percent of the f.o.b. value. Based upon the government of Mexico's responses to our questionnaires and our verification of those responses we have found that the current rate for exports of ceramic tile is 10 percent of the f.o.b. value. We verified that generally all ceramic tile producers who properly apply for a 10 percent CEDI certificate on their tile exports receive it. Exporters

are required to apply for each CEDI by providing to the Ministry of Commerce ("SECOM") documentation with respect to each individual shipment of qualifying exports. SECOM processes the application and, on approval, instructs the Ministry of Treasury ("TESORERIA") to issue the CEDI's in the amount specified. The CEDI's are non-transferable and may be applied against a wide range of federal tax liabilities (including payroll taxes, value added taxes, federal income taxes, and import duties) over a period of five years from the date of issuance.

In general, when a subsidy program contains carry-over provisions, we calculate the benefit based on the value of the entire outstanding balance. However, where: (1) the amount of the benefit is known or easily foreseeable at the time of export; (2) the benefits may be used at once, both in the legal sense (the CEDI program does not require delay in using the credits) and the practical sense (the certificates may be used for a wide range of taxes, including, several which must be paid even by a firm not earning a profit); and (3) our investigation reveals that the credits are almost always utilized as soon as they become available rather than carried forward, then the amount of countervailable benefits utilized in a particular year may be considered equivalent to the value of credits made available during that year. Under these circumstances, the CEDI may be treated as the equivalent of a direct cash grant which is countervailable in full in the amount of 10 percent of the f.o.b. value of the exported merchandise.

#### Issue

Counsel for certain ceramic tile exporters argue that the CEDI is not countervailable in full since: (a) Not all exporters make application for, and thus do not receive the CEDI, and (b) the CEDI's are not necessarily utilized in the same period in which the shipment was exported, this reducing the value of the *ad valorem* benefit in situations of rising exports. Counsel argues that because receipt and utilization experience varies by each firm, the actual benefit amounts to less than the nominal CEDI rate allowed, and the Department should instead allocate total CEDI benefits received during a specific period of time over total exports to the United States during the same period.

Counsel cites *Industrial Fasteners Group, American Importers Association v. United States*—C.I.T.—, Slip. Op. 82-13, February 11, 1982, wherein the court held that any estimate of the tax benefits allowed by the government of India to exporters as a whole must take

into account, *inter alia*, the fact that certain exporters neither filed for nor received any or all tax benefits under the program. Counsel argues that if the Department uses an industry-wide rate, the exports for which the firms do not make an application for a CEDI must be factored into the calculation to reflect the rate of benefit received by the industry as a whole. Counsel also cites the Brazilian countervailing duty cases wherein the Department allocated the benefits earned over exports made during the period in which the tax credits were utilized (i.e., in the period following the fiscal year in which the tax credits were earned).

#### DOC Position

If we were to calculate one countervailing duty rate on the CEDI program by using an average receipt or utilization rate (i.e., less than 10 percent), we would be applying a countervailing duty to firms which receive no benefit, and applying an average rate (i.e., less than 10 percent) to firms which receive the full 10 percent CEDI. Since all firms can receive the 10 percent CEDI upon approval of their application, we will apply a 10 percent countervailing duty to the CEDI program, and we will provide for a certification process that will allow an adjustment to the duty deposit rate to zero for firms certified and verified as not applying for the countervailable benefits.

Our verification of the government of Mexico's responses revealed that CEDI applicants utilize the certificates for payment of a wide variety of taxes within a relatively short time after receipt. The primary reason that certain companies utilized certificates to pay taxes at a rate lower than 10 percent of exports in 1980 and 1981 was that the companies' exports have been increasing. If exports of ceramic tile from Mexico were to decrease, then CEDI applicants could utilize the certificates at a rate greater than 10 percent of exports. In addition, it was demonstrated during the verification that there may be short delays from the time of application for CEDI to the time individual firms receive the CEDI certificates, but such delays do not constitute the basis for an offset under our law.

The Department believes that the facts in *Indian Fasteners* and Brazilian countervailing duty cases are not directly comparable to the facts in this case, and that those decisions do not have direct bearing on this determination. In contrast to the Indian tax deduction program, the actual CEDI benefit allowed and received is the

same since the CEDI is consistently granted as a fixed proportion of the f.o.b. value of each export shipment. The Department has also allowed imports from those exporters who are properly certified and verified as not applying for any subsidy to be exempt from the posting of any duty deposits. Furthermore, the controlling factor in the Department's decision in the Brazilian cases is that the value of the firm's tax credit is based on the ratio of its annual exports to its total annual revenues, and utilization is dependent upon the federal income tax liability of the firm in that given year. There is no provision for carrying forward any unused portion of the firm's tax credit. Under these conditions, the Brazilian exporters do not know the amount of benefit, if any at all, until the end of their fiscal year. Mexican tile exporters, however, not only know the full value of the benefit from the start, but they have demonstrated that they use the full face value of the certificate in a short period of time.

#### Issue

Counsel for the respondents also argued that if the Department declined to calculate a single rate for the entire industry in the manner outlined by counsel above, the Department should calculate company-specific rates or a weighted average utilization rate for the two largest exporters.

#### DOC Position

It is the longstanding practice of the Department to set country-wide countervailing duty rates where at all possible. The Department believes that by setting a zero duty deposit rate for imports from firms properly certified and verified as not applying for subsidies, it has adequately protected against the assessment of duties where clearly no benefits have been bestowed.

The Department has determined that the government of Mexico is providing bounties or grants to its manufacturers, producers, and exporters of ceramic tile under the CEDI program in the amount of 10 percent of the f.o.b. value. In calculating the value of the countervailable benefit attributable to the CEDI, the Department determines that the benefit is the nominal rate granted on each shipment of the subject merchandise (i.e., 10 percent of the f.o.b. value of ceramic tiles). For those firms which are properly certified by the government of Mexico as not applying for any subsidies whatsoever, upon proper verification the duty deposit rate may be reduced to zero percent.

### The CEPROFI Program

In 1979, the government of Mexico introduced a four-year National Industrial Development Plan ("NIDP") which spells out broad economic goals for the country. Tax credits, which are called Certificates of Fiscal Promotion ("CEPROFI"), are used to increase employment and to promote the NIDP goals, which include the promotion of regional decentralization, industrial investment, and small and medium sized firms.

CEPROFI certificates are similar to CEDI certificates; both are non-transferable tax certificates of a set value which may be used for a five-year period to pay federal taxes. CEPROFI certificates are granted for carrying out investments in "priority" industrial activities. The amount of the CEPROFI is based upon the location of the activity, the number of jobs generated, the value of the investments in new plants and equipment, or the amount of purchase of capital goods produced in Mexico.

We found that CEPROFI's granted with respect to ceramic tile manufacturers were intended to encourage industrial development in specific regions in Mexico. The Department has consistently held that regional development benefits are countervailable. We, therefore, have determined that the CEPROFI's granted in this case are domestic subsidies.

The Department notes that the promotion of exports is included in the extensive list of NIDP goals and the objectives listed in the preamble to the CEPROFI decree. The Department may in other instances determine that the CEPROFI's serve as export subsidies. However, in this particular case, the Department did not find significant evidence to indicate that the CEPROFI's granted to the ceramic tile manufacturers was for the primary purpose of promoting exports. The ceramic tile manufacturers have a large home market for their products and are not geographically concentrated along the border or port areas. A CEPROFI such as this may be expected to benefit the entire production of the firm and not exports alone.

The Department has determined that the government of Mexico is providing bounties or grants to its manufacturers, producers, and exporters of ceramic tile under the CEPROFI program. We have allocated the countervailable CEPROFI benefits received in the first nine months of 1981 over the total production of tile produced during that period, which results in a net subsidy of .09 percent *ad valorem*.

### Preferential Financing Programs

The Fund for the Promotion of Exports of Mexican Manufactured Products ("FOMEX") is a trust established by the Government of Mexico to promote the manufacture and sale of exported products. The fund is administered by the Mexican Treasury Department, with the Bank of Mexico (Mexico's central bank) acting as the trustee. The Bank of Mexico administers the financing of FOMEX loans through financial institutions. The financial institutions establish contracts for lines of credit with manufacturers and exporters of ceramic tile.

We found that FOMEX loans are available at preferential rates to producers, manufacturers, and exporters of ceramic tile for two purposes: pre-export (production) financing or export financing.

In order for a company to be eligible for FOMEX financing for exports, the following requirements must be met: (1) The product to be manufactured must be included on a list made public by FOMEX; (2) the articles to be exported must have a minimum of 30 percent national content in direct production costs; (3) loans granted for pre-export must be in Mexican currency, while loans for export sales are established in U.S. dollars or any other foreign currency acceptable to the Bank of Mexico; and (4) the exporter must carry insurance against commercial risks to the extent of the loans. We found that the maximum annual interest rate that credit institutions may charge borrowers for FOMEX pre-export financing is 8 percent in Mexican pesos. The maximum annual interest rate for FOMEX export financing is 6 percent in the currency of the country of importation.

### Issue

The government of Mexico contends that the FOMEX loans are comparable to loans authorized by the OECD Arrangement on export credits ("Arrangement"), that such loans under the Arrangement are not countervailable, and that therefore FOMEX loans are not countervailable. The Mexican government and counsel for certain exporters believe that paragraph K of the Illustrative List of Export Subsidies (Annex A of the Agreement of Interpretation and Application of Articles VI, XVI, and XXIII of the General Agreement on Tariffs and Trade) establishes the standard of review for FOMEX financing under the United States countervailing duty law.

### DOC Position

FOMEX terms and rates are different from those under the OECD Arrangement. Mexico is not a member of the Arrangement, and the U.S. government has not recognized loans under the Arrangement as non-countervailable. There are a large number of precedents in previous cases before the Department supporting a determination that similar preferential loans are countervailable, and the benefits should be calculated on the basis of commercially available rates.

We believe that regardless of what effects the Illustrative List of Prohibitive Export Subsidies may have on U.S. law otherwise, the uniform past practices on this issue in comparison with the legislative history of the Trade Act requires us to calculate the bounty or grant provided under a preferential loan program on the basis of a comparison between the preferential rate and the commercially available rate rather than on the basis of a comparison with the cost of the funds to the government.

The government of Mexico did not provide information on the commercial rate of interest in Mexico which was available to tile manufacturers and exporters. We contracted various banks in Mexico City and consulted with the American Embassy in Mexico City and the U.S. Department of the Treasury to determine what the comparable commercial rate of interest was in Mexico for ceramic tile exporters during the first nine months of 1981. During our verification of the government of Mexico's response, we verified that certain exporters received commercially available dollar-denominated and peso-denominated loans.

On the basis of the best information available, the Department has determined that the government of Mexico is providing bounties or grants to its manufacturers, producers, and exporters of ceramic tile under the FOMEX program. We have determined that during the first nine months of 1981, comparable dollar-denominated loans were available at 23.49 percent, which is 4 percent over the average U.S. prime rate for the first three quarters of 1981. For comparable peso-denominated loans, we found that interest rates were commercially available at 45 percent interest for large ceramic tile manufacturers and exporters and 55 percent interest for other ceramic tile manufacturers and exporters during the period.

For those FOMEX loans obtained by ceramic tile manufacturers during the period January 1, 1981—September 30,

1981, we computed the difference in interest expense between the FOMEX loans and that which would have been incurred had the loans been made at commercial rates. We allocated this amount over the value of total exports during the same period in the case of pre-export financing loans, and over the value of exports to the U.S. during the same period in the case of export financing loans. We have determined the net amount of the benefit rate for loans granted for pre-exports to be 3.42 percent *ad valorem* and the net amount of the benefit rate for export financing to be 2.33 percent *ad valorem*, for a total subsidy under the two programs of 5.75 percent *ad valorem*.

#### Final Determination

We have determined that the government of Mexico is providing bounties or grants within the meaning of section 303 of the Act to its producers, manufacturers, and exporters of ceramic tile and that the estimated net amount of these bounties or grants equal 15.84 percent of the f.o.b. value of the exported merchandise.

#### Administrative Procedures

The Department has afforded interested parties an opportunity to present oral views in accordance with the Department of Commerce's Regulations (19 CFR 353.35). No request was received for a public hearing in this case. In addition, written views have been received in accordance with the Department of Commerce's Regulations (19 CFR 355.34(a)).

Customs officers are directed to continue the suspension of liquidation ordered in the preliminary determination. Effective upon the publication of this notice in the Federal Register and until further notice a cash deposit, in the amount of 15.84 percent *ad valorem*, must be posted on all ceramic tile entering the United States from Mexico or being withdrawn from warehouses for consumption, except for those manufactured by Jesus Garza Arocha for which the duty deposit rate is zero.

We have deleted from the Commerce Regulations Annex III, which listed countervailing duty orders currently in effect. Instead, interested parties may contact the Office of Information Services, Import Administration, for copies of the updated list of orders currently in effect.

This notice is published pursuant to sections 303 and 706 of the Act (19 U.S.C. 1303, 1671e).

Gary N. Horlick,

Acting Assistant Secretary for Trade Administration.

May 3, 1982.

[FR Doc. 82-12637 Filed 5-7-82; 9:45 am]

BILLING CODE 3510-35-M

#### Frederick Cancer Research Center; Decision on Application for Duty-Free Entry of Scientific Article

The following is a decision on an application for duty-free entry of a scientific article pursuant to Section 6(c) of the Educational, Scientific, and Cultural Materials Importation Act of 1966 (Public Law 89-651, 80 Stat. 897) and the regulations issued thereunder as amended (15 CFR Part 301).

A copy of the record pertaining to this decision is available for public review between 8:30 A.M. and 5:00 P.M. in Room 2097 of the Department of Commerce Building, 14th and Constitution Avenue, N.W., Washington, D.C. 20230.

Docket No. 81-00379. Applicant: Frederick Cancer Research Center, P.O. Box B, Frederick, MD 21701. Article: Digital Scan Control Unit. Manufacturer: VG Micromass/VG Data Systems, United Kingdom. Intended Use of Article: See Notice on page 51826 in the Federal Register of October 21, 1981.

Comments: No comments have been received with respect to this application. Decision: Application approved. No instrument or apparatus of equivalent scientific value to the foreign article, for such purposes as this article is intended to be used, is being manufactured in the United States. Reasons: This application is a resubmission of Docket No. 80-00394, which was denied without prejudice to resubmission for informational deficiencies (March 5, 1981). The application relates to an accessory for an instrument that had been previously imported for the use of the applicant institution. The article is being furnished by the manufacturer which produced the instrument with which the article is intended to be used and is pertinent to the applicant's purposes.

The Department of Commerce knows of no similar accessory being manufactured in the United States, which is interchangeable with or can be readily adapted to the instrument with which the foreign article is intended to be used.

(Catalog of Federal Domestic Assistance Program No. 11.106, Importation of Duty-Free Educational and Scientific Materials)

Frank W. Creel,

Acting Director, Statutory Import Programs Staff.

[FR Doc. 82-12647 Filed 5-7-82; 9:45 am]

BILLING CODE 3510-25-M

#### Smithsonian Institution; Decision on Application for Duty-Free Entry of Scientific Article

The following is a decision on an application for duty-free entry of a scientific article pursuant to Section 6(c) of the Educational, Scientific, and Cultural Materials Importation Act of 1966 (Pub. L. 89-651, 80 Stat. 897) and the regulations issued thereunder as amended (15 CFR Part 301).

A copy of the record pertaining to this decision is available for public review between 8:30 A.M. and 5:00 P.M. in Room 2097 of the Department of Commerce Building, 14th and Constitution Avenue, N.W., Washington, D.C. 20230.

Docket No. 81-00380. Applicant: Smithsonian Institution, U.S. National History, Washington, D.C. 20560. Article: Scanning Electron Microscope, Stereoscan 250 T with Accessories. Manufacturer: Cambridge Instruments, Ltd., United Kingdom. Intended use of article: See Notice on page 48279 in the Federal Register of October 1, 1981.

Comments: No comments have been received with respect to this application. Decision: Application approved. No instrument or apparatus of equivalent scientific value to the foreign article, for such purposes as this article is intended to be used, is being manufactured in the United States. Reasons: The foreign article provides large specimen (30 mm x 5 mm) XY motion of 100 mm, Z motion of 20 mm, tilt of 0-40° and rotation of 360°. The National Bureau of Standards advises in its memorandum dated February 22, 1982 that (1) the capabilities of the foreign article described above are pertinent to the applicant's intended purpose and (2) it knows of no domestic instrument or apparatus of equivalent scientific value to the foreign article for the applicant's intended use.

The Department of Commerce knows of no other instrument or apparatus of equivalent scientific value to the foreign article, for such purposes as this article is intended to be used, which is being manufactured in the United States.



**APPENDIX F**

**NOTICE OF LABOR'S AFFIRMATIVE RECOMMENDATION TO THE  
CERTIFYING OFFICER**

U.S. Department of Labor

Employment and Training Administration  
601 D Street, N.W.  
Washington, D.C. 20213

DATE: 8/30/82

SUBJECT: Trade Act of 1974, Worker Petition for Certification  
of Eligibility to Apply for Adjustment Assistance,  
H & R Johnson, Inc., Keyport, New Jersey (TA-W-13,072)

TO: Certifying Officer

I. Recommendation

In accordance with 29 CFR 90.15 and the criteria set forth in Section 222 of the Trade Act of 1974, it is recommended that all workers of H & R Johnson, Inc., Keyport, New Jersey who became totally or partially separated from employment on or after October 9, 1980 and before July 1, 1982 be certified as eligible to apply for adjustment assistance under Section 223 of the Trade Act of 1974.



## II. Basis for the Recommendation

Evidence developed in the course of the investigation revealed that all of the criteria have been met.

Company sales of glazed ceramic tile produced by the petitioning workers declined in 1981 compared to 1980 and declined in the first half of 1982 compared to the first half of 1981. Production of glazed ceramic tile was discontinued in September 1981 when the plant was closed.

Employment at H & R Johnson declined in 1981 compared to 1980 and declined in the first half of 1982 compared to the first half of 1981. Most production workers were laid off on September 10, 1981 and by June 30, 1982 all remaining company employees were engaged exclusively in employment related to the marketing of imported tile.

U.S. imports of ceramic wall and floor tile increased both absolutely and relative to domestic production in 1980 compared to 1979 and increased absolutely in 1981 compared to 1980.

Company imports of glazed ceramic tile increased in 1981 compared to 1980 and increased in the period January-July 1982 compared to January-July 1981. H & R Johnson currently relies on imported tile for all of its sales.

## III. Appropriate Subdivision, Impact Date, Termination Date and Estimated Caseload

All workers of H & R Johnson, Inc., Keyport, New Jersey were engaged in employment related to the production of glazed ceramic wall and floor tile.

The recommended impact date of October 9, 1980 and termination date of July 1, 1982 would generate an estimated adjustment assistance caseload of approximately 103 workers.



MARVIN M. FOOKS  
Director, Office of  
Trade Adjustment Assistance

I concur with, accept and adopt the findings of fact and recommendation set forth herein, except as noted below.

Exceptions:



**APPENDIX G**

**NOTICE OF LABOR'S CERTIFICATION OF WORKER ELIGIBILITY TO  
APPLY FOR WORKER ADJUSTMENT ASSISTANCE**

## DEPARTMENT OF LABOR

## Employment and Training Administration

TA-W-13,072

H & R JOHNSON, INC.  
KEYPORT, NEW JERSEYCertification Regarding Eligibility  
to Apply for Worker Adjustment Assistance

In accordance with Section 223 of the Trade Act of 1974 (19 USC 2273) the Department of Labor herein presents the results of an investigation regarding certification of eligibility to apply for worker adjustment assistance.

In order to make an affirmative determination and issue a certification of eligibility to apply for adjustment assistance, each of the group eligibility requirements of Section 222 of the Act must be met. It is determined in this case that all of the requirements have been met.

The investigation was initiated on October 26, 1981 in response to a petition received on October 20, 1981 which was filed by the Oil, Chemical and Atomic Workers International Union on behalf of workers at H & R Johnson, Inc., Keyport, New Jersey. The workers produced glazed ceramic wall and floor tile.

U.S. imports of ceramic wall and floor tile increased both absolutely and relative to domestic production in 1980 compared to 1979 and increased absolutely in 1981 compared to 1980.

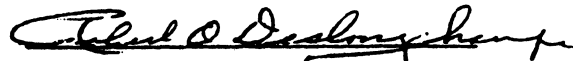
Company imports of glazed ceramic tile increased in 1981 compared to 1980 and increased in the period January-July 1982 compared to January-July 1981. H & R Johnson currently relies on imported tile for all of its sales.

Conclusion

After careful review of the facts obtained in the investigation, I conclude that increases of imports of articles like or directly competitive with glazed ceramic tile produced at H & R Johnson, Inc., Keyport, New Jersey contributed importantly to the decline in sales or production and to the total or partial separation of workers of that firm. In accordance with the provisions of the Act, I make the following certification:

"All workers of H & R Johnson, Inc., Keyport, New Jersey who became totally or partially separated from employment on or after October, 9, 1980 and before July 1, 1982 are eligible to apply for adjustment assistance under Section 223 of the Trade Act of 1974."

Signed at Washington, D.C. this 31st day of August 1982.



CERTIFYING OFFICER

ROBERT O. DESLONGCHAMPS  
Acting Deputy Administrator,  
Unemployment Insurance Service



**APPENDIX H**

**CERAMIC FLOOR AND WALL TILES: U.S. PRODUCERS'  
AND U.S. IMPORTERS' COMPETITIVE ASSESSMENTS  
AND U.S. PRODUCERS' REASONS FOR IMPORTING**

Table H-1.--Ceramic floor and wall tiles: U.S. producers' competitive assessments 1/ of structural factors of competition for the U.S. and selected foreign industries, 2/ 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Raw materials:			
Availability-----	14	9	77
Cost-----	19	57	24
Fuel:			
Availability-----	22	4	74
Cost-----	59	18	23
Capital:			
Availability-----	-	79	21
Cost-----	6	94	-
Ability of industry profits to attract capital-----	25	62	13
Labor:			
Availability-----	-	65	35
Cost-----	4	96	-
Technology-----	8	29	63
Marketing:			
Channels of distribution-----	75	-	25
Responsiveness to orders-----	96	-	4
After-sale service capabilities-----	96	-	4
Government involvement:			
Subsidies-----	-	100	-
Research and development-----	20	56	24
Tariff levels-----	9	73	18
Nontariff barriers-----	7	86	7
Regulation-----	9	91	-

1/ Data supplied by 7 firms, which accounted for 67 percent of U.S. producers' shipments in 1982 (on the basis of quantity).

2/ Italy, Japan, Mexico, West Germany, and Brazil are the selected foreign industries.

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



Table H-2.--Ceramic floor and wall tiles: U.S. producers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and foreign-made tiles 2/ in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	22	67	11
Price-----	4	92	4
Quality-----	67	7	26
Aesthetic appeal-----	48	33	19
Terms of sale-----	4	92	4
Overall availability-----	62	19	19
Variety-----	46	39	15
Availability of matching trim-----	27	4	19
Accessibility of distribution outlets--	41	7	52
Prompt delivery of inventoried items-----	70	4	26
Short leadtimes for noninventoried items--	77	4	19
Technical assistance availability-----	66	4	30
Warranties-----	63	4	33
Historical supplier relationship-----	75	4	21

1/ Data supplied by 7 firms, which accounted for 67 percent of U.S. producers' shipments in 1982 (on the basis of quantity).

2/ Foreign-made tiles from Italy, Japan, Mexico, West Germany, and Brazil are covered.

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

Table H-3.--Ceramic floor and wall tiles: U.S. importers' competitive assessments <sup>1/</sup> of product-related factors of competition for U.S.-produced and foreign-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	40	33	27
Price-----	54	33	13
Quality-----	22	72	6
Aesthetic appeal-----	17	77	6
Terms of sale-----	47	13	40
Overall availability-----	73	27	-
Variety-----	11	89	-
Availability of matching trim-----	60	33	7
Accessibility of distribution outlets--	66	27	7
Prompt delivery of inventoried items-----	54	13	33
Short leadtimes for noninventoried items--	66	27	7
Technical assistance availability-----	80	7	13
Warranties-----	73	20	7
Historical supplier relationship-----	25	75	-

<sup>1/</sup> Data supplied by 5 firms, which accounted for 14 percent of U.S. imports in 1982 (on the basis of quantity).

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

Table H-4.--Ceramic floor and wall tiles: U.S. producers' reasons for importing, 1982 1/

Item	Percentage of responses stating that--		
	Competitive factor is very significant in their decision to import	Competitive factor is significant in their decision to import	Competitive factor is not relevant to their decision to import
Price-----	64	14	11
Quality-----	21	50	29
Aesthetic appeal-----	7	79	14
Terms of sale-----	21	50	29
Overall availability-----	-	43	57
Variety-----	7	57	36
Availability of matching trim-----	-	43	57
Accessibility of distribution outlets--	-	21	79
Prompt delivery of inventoried items-----	-	29	71
Short leadtimes for noninventoried items--	7	36	57
Technical assistance availability-----	-	29	71
Warranties-----	-	21	79
Historical supplier relationship-----	-	43	57

1/ Data supplied by 7 firms, which accounted for 67 percent of U.S. producers shipments in 1982 (on the basis of quantity).

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



**APPENDIX I**

**CERAMIC FLOOR AND WALL TILES, MOSIAC: U.S.  
PRODUCERS' AND U.S. IMPORTERS' COMPETITIVE  
ASSESSMENTS AND U.S. PRODUCERS' REASONS  
FOR IMPORTING**

Table I-1.--Ceramic floor and wall tiles, mosaic: U.S. producers' competitive assessments <sup>1/</sup> of product-related factors of competition for U.S.-produced and foreign-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	-	100	-
Price-----	-	100	-
Quality-----	50	-	50
Aesthetic appeal-----	-	50	50
Terms of sale-----	-	100	-
Overall availability:-----	50	50	-
Variety-----	-	50	50
Availability of matching trim-----	50	-	50
Accessibility of distribution outlets--	-	-	100
Prompt delivery of inventoried items-----	50	-	50
Short leadtimes for noninventoried items--	50	-	50
Technical assistance availability-----	50	-	50
Warranties-----	50	-	50
Historical supplier relationship-----	50	-	50

<sup>1/</sup> Data supplied by 2 firms.

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

Table I-2.--Ceramic floor and wall tiles, mosaic: U.S. producers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Japanese-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	-	100	-
Price-----	-	100	-
Quality-----	50	-	50
Aesthetic appeal-----	-	50	50
Terms of sale-----	-	100	-
Overall availability-----	50	50	-
Variety-----	-	50	50
Availability of matching trim-----	50	-	50
Accessibility of distribution outlets--	-	-	100
Prompt delivery of inventoried items-----	50	-	50
Short leadtimes for noninventoried items--	50	-	50
Technical assistance availability-----	50	-	50
Warranties-----	50	-	50
Historical supplier relationship-----	50	-	50

1/ Data supplied by 2 firms.

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

Table I-3.--Ceramic floor and wall tiles, mosaic: U.S. importers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and foreign-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	20	40	40
Price-----	20	40	40
Quality-----	17	66	17
Aesthetic appeal-----	17	83	-
Terms of sale-----	40	20	40
Overall availability-----	40	60	-
Variety-----	17	83	-
Availability of matching trim-----	60	20	20
Accessibility of distribution outlets--	60	20	20
Prompt delivery of inventoried items-----	40	40	20
Short leadtimes for noninventoried items--	40	40	20
Technical assistance availability-----	80	20	-
Warranties-----	60	20	20
Historical supplier relationship-----	25	75	-

1/ Data supplied by 5 firms.

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



Table I-4.--Ceramic floor and wall tiles, mosaic: U.S. importers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Japanese-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	25	25	50
Price-----	25	25	50
Quality-----	-	75	25
Aesthetic appeal-----	-	100	-
Terms of sale-----	50	25	25
Overall availability-----	25	75	-
Variety-----	-	100	-
Availability of matching trim-----	50	25	25
Accessibility of distribution outlets--	50	25	25
Prompt delivery of inventoried items-----	25	50	25
Short leadtimes for noninventoried items--	25	50	25
Technical assistance availability-----	75	25	-
Warranties-----	50	25	25
Historical supplier relationship-----	-	100	-

1/ Data supplied by 4 firms.

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

Table I-5.--Ceramic floor and wall tiles, mosaic: U.S. importers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Korean-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	-	100	-
Price-----	-	100	-
Quality-----	100	-	-
Aesthetic appeal-----	100	-	-
Terms of sale-----	-	-	100
Overall availability-----	100	-	-
Variety-----	100	-	-
Availability of matching trim-----	100	-	-
Accessibility of distribution outlets--	100	-	-
Prompt delivery of inventoried items-----	100	-	-
Short leadtimes for noninventoried items--	100	-	-
Technical assistance availability-----	100	-	-
Warranties-----	100	-	-
Historical supplier relationship-----	100	-	-

1/ Data supplied by 1 firm.

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

Table I-6.--Ceramic floor and wall tiles, mosaic: U.S. importers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and West German-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	-	-	-
Price-----	-	-	-
Quality-----	-	100	-
Aesthetic appeal-----	-	100	-
Terms of sale-----	-	-	-
Overall availability-----	-	-	-
Variety-----	-	100	-
Availability of matching trim-----	-	-	-
Accessibility of distribution outlets--	-	-	-
Prompt delivery of inventoried items----	-	-	-
Short leadtimes for noninventoried items--	-	-	-
Technical assistance availability-----	-	-	-
Warranties-----	-	-	-
Historical supplier relationship-----	-	-	-

1/ Data supplied by 1 firm.

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

Table I-7 .--Ceramic floor and wall tiles, mosaic: U.S. producers' reasons for importing, 1982 1/

Item	Percentage of responses stating that--		
	Competitive factor is very significant in their decision to import	Competitive factor is significant in their decision to import	Competitive factor is not relevant to their decision to import
Price-----	60	20	20
Quality-----	-	60	40
Aesthetic appeal-----	-	60	40
Terms of sale-----	40	20	40
Overall availability-----	-	60	40
Variety-----	-	60	40
Availability of matching trim-----	-	40	60
Accessibility of distribution outlets--	-	20	80
Prompt delivery of inventoried items-----	-	40	60
Short leadtimes for noninventoried items--	-	40	60
Technical assistance availability-----	-	20	80
Warranties-----	-	20	80
Historical supplier relationship-----	-	40	60

1/ Data supplied by five firms.

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

**APPENDIX J**

**CERAMIC FLOOR AND WALL TILES, GLAZED NONMOSIAC: U.S.  
PRODUCERS' AND U.S. IMPORTERS' COMPETITIVE  
ASSESSMENTS AND U.S. PRODUCERS' REASONS  
FOR IMPORTING**

Table J-1.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. producers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and foreign-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	67	33	-
Price-----	17	66	17
Quality-----	83	17	-
Aesthetic appeal-----	66	17	17
Terms of sale-----	20	60	20
Overall availability-----	66	17	17
Variety-----	80	20	-
Availability of matching trim-----	83	17	-
Accessibility of distribution outlets--	33	17	50
Prompt delivery of inventoried items----	83	17	-
Short leadtimes for noninventoried items--	83	17	-
Technical assistance availability-----	66	17	17
Warranties-----	66	17	17
Historical supplier relationship-----	80	20	-

1/ Data supplied by 2 firms.

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

Table J-2.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. producers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Mexican-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	-	100	-
Price-----	-	100	-
Quality-----	50	50	-
Aesthetic appeal-----	50	50	-
Terms of sale-----	-	100	-
Overall availability-----	50	50	-
Variety-----	50	50	-
Availability of matching trim-----	50	50	-
Accessibility of distribution outlets--	50	50	-
Prompt delivery of inventoried items-----	50	50	-
Short leadtimes for noninventoried items--	50	50	-
Technical assistance availability-----	50	50	-
Warranties-----	50	50	-
Historical supplier relationship-----	50	50	-

1/ Data supplied by 2 firms.

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

Table J-3.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. producers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Italian-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	100	-	-
Price-----	-	50	50
Quality-----	100	-	-
Aesthetic appeal-----	50	-	50
Terms of sale-----	-	-	100
Overall availability-----	50	-	50
Variety-----	100	-	-
Availability of matching trim-----	100	-	-
Accessibility of distribution outlets--	-	-	100
Prompt delivery of inventoried items-----	100	-	-
Short leadtimes for noninventoried items--	100	-	-
Technical assistance availability-----	50	-	50
Warranties-----	50	-	50
Historical supplier relationship-----	100	-	-

1/ Data supplied by 2 firms.

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



Table J-4.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. producers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Japanese-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	100	-	-
Price-----	50	50	-
Quality-----	100	-	-
Aesthetic appeal-----	100	-	-
Terms of sale-----	50	50	-
Overall availability-----	100	-	-
Variety-----	100	-	-
Availability of matching trim-----	100	-	-
Accessibility of distribution outlets--	50	-	50
Prompt delivery of inventoried items-----	100	-	-
Short leadtimes for noninventoried items--	100	-	-
Technical assistance availability-----	100	-	-
Warranties-----	100	-	-
Historical supplier relationship-----	100	-	-

1/ Data supplied by 2 firms.

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

Table J-5.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. importers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and foreign-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	50	25	25
Price-----	75	25	-
Quality-----	20	80	-
Aesthetic appeal-----	20	80	-
Terms of sale-----	50	-	50
Overall availability-----	100	-	-
Variety-----	20	80	-
Availability of matching trim-----	75	25	-
Accessibility of distribution outlets--	75	25	-
Prompt delivery of inventoried items-----	50	-	50
Short leadtimes for noninventoried items--	100	-	-
Technical assistance availability-----	75	-	25
Warranties-----	75	25	-
Historical supplier relationship-----	33	67	-

1/ Data supplied by 5 firms.

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

Table J-6.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. importers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Italian-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	-	100	-
Price-----	-	100	-
Quality-----	100	-	-
Aesthetic appeal-----	100	-	-
Terms of sale-----	100	-	-
Overall availability-----	100	-	-
Variety-----	100	-	-
Availability of matching trim-----	100	-	-
Accessibility of distribution outlets--	100	-	-
Prompt delivery of inventoried items-----	100	-	-
Short leadtimes for noninventoried items--	100	-	-
Technical assistance availability-----	100	-	-
Warranties-----	100	-	-
Historical supplier relationship-----	100	-	-

1/ Data supplied by 1 firm.

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

Table J-7.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. importers' competitive assessments <sup>1/</sup> of product-related factors of competition for U.S.-produced and Japanese-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	50	-	50
Price-----	100	-	-
Quality-----	-	100	-
Aesthetic appeal-----	-	100	-
Terms of sale-----	50	-	50
Overall availability-----	100	-	-
Variety-----	-	100	-
Availability of matching trim-----	100	-	-
Accessibility of distribution outlets--	100	-	-
Prompt delivery of inventoried items-----	50	-	50
Short leadtimes for noninventoried items--	100	-	-
Technical assistance availability-----	100	-	-
Warranties-----	100	-	-
Historical supplier relationship-----	-	100	-

<sup>1/</sup> Data supplied by 2 firms.

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

Table J-8.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. importers' competitive assessments <sup>1/</sup> of product-related factors of competition for U.S.-produced and West German-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	100	-	-
Price-----	100	-	-
Quality-----	-	100	-
Aesthetic appeal-----	-	100	-
Terms of sale-----	-	-	100
Overall availability-----	100	-	-
Variety-----	-	100	-
Availability of matching trim-----	-	100	-
Accessibility of distribution outlets---	-	100	-
Prompt delivery of inventoried items---	-	-	100
Short leadtimes for noninventoried items---	100	-	-
Technical assistance availability-----	-	-	100
Warranties-----	-	100	-
Historical supplier relationship-----	-	-	-

<sup>1/</sup> Data supplied by 2 firms.

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

Table J-9.--Ceramic floor and wall tiles, unglazed nonmosaic: U.S. producers' reasons for importing, 1982 1/

Item	Percentage of responses stating that--		
	Competitive factor is very significant in their decision to import	Competitive factor is significant in their decision to import	Competitive factor is not relevant to their decision to import
Price-----	100	-	-
Quality-----	33	67	-
Aesthetic appeal-----	-	100	-
Terms of sale-----	-	100	-
Overall availability-----	-	67	33
Variety-----	-	67	33
Availability of matching trim-----	-	67	33
Accessibility of distribution outlets--	-	33	67
Prompt delivery of inventoried items-----	-	33	67
Short leadtimes for noninventoried items--	-	33	67
Technical assistance availability-----	-	33	67
Warranties-----	-	33	67
Historical supplier relationship-----	-	67	33

1/ Data supplied by 3 firms.

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

**APPENDIX K**

**CERAMIC FLOOR And WALL TILES, GLAZED NONMOSIAC: U.S.  
PRODUCERS' AND U.S. IMPORTERS' COMPETITIVE  
ASSESSMENTS AND U.S. PRODUCERS' REASONS  
FOR IMPORTING**

Table K-1.--Ceramic floor and wall tiles, glazed nonmosiac: U.S. producers' competitive assessments 1/ of selected factors of competition for U.S.-produced and foreign-made glazed nonmosaic tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	11	73	16
Price-----	-	100	-
Quality-----	63	5	32
Aesthetic appeal-----	47	37	16
Terms of sale-----	-	100	-
Overall availability-----	63	16	21
Variety-----	42	42	16
Availability of matching trim-----	79	-	21
Accessibility of distribution outlets-----	47	6	47
Prompt delivery of inventoried items-----	68	-	32
Short leadtimes for noninventoried items-----	79	-	21
Technical assistance availability-----	68	-	32
Warranties-----	63	-	37
Historical supplier relationship-----	76	-	24

1/ Data supplied by 7 firms.

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



Table K-2.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. producers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Italian-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	-	86	14
Price-----	-	100	-
Quality-----	57	-	43
Aesthetic appeal-----	29	42	29
Terms of sale-----	-	100	-
Overall availability-----	72	14	14
Variety-----	14	57	29
Availability of matching trim-----	86	-	14
Accessibility of distribution outlets--	57	-	43
Prompt delivery of inventoried items-----	86	-	14
Short leadtimes for noninventoried items--	86	-	14
Technical assistance availability-----	86	-	14
Warranties-----	71	-	29
Historical supplier relationship-----	86	-	14

1/ Data supplied by 7 firms.

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

Table K-3.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. producers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Japanese-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage	14	57	29
Price	-	100	-
Quality	57	14	29
Aesthetic appeal	57	43	-
Terms of sale	-	100	-
Overall availability	72	14	14
Variety	57	43	-
Availability of matching trim	86	-	14
Accessibility of distribution outlets	43	14	43
Prompt delivery of inventoried items	71	-	29
Short leadtimes for noninventoried items	86	-	14
Technical assistance availability	71	-	29
Warranties	71	-	29
Historical supplier relationship	83	-	17

1/ Data supplied by 7 firms.

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

Table K-4.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. producers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Mexican-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	-	100	-
Price-----	-	100	-
Quality-----	100	-	-
Aesthetic appeal-----	67	-	33
Terms of sale-----	-	100	-
Overall availability-----	33	-	67
Variety-----	67	-	33
Availability of matching trim-----	67	-	33
Accessibility of distribution outlets-----	33	-	67
Prompt delivery of inventoried items-----	33	-	67
Short leadtimes for noninventoried items-----	67	-	33
Technical assistance availability-----	33	-	67
Warranties-----	33	-	67
Historical supplier relationship-----	50	-	50

1/ Data supplied by 3 firms.

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

Table K-5.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. producers' competitive assessments <sup>1/</sup> of product-related factors of competition for U.S.-produced and West German-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage	-	100	-
Price	-	100	-
Quality	-	-	100
Aesthetic appeal	-	100	-
Terms of sale	-	100	-
Overall availability	-	100	-
Variety	-	100	-
Availability of matching trim	-	-	100
Accessibility of distribution outlets	-	-	100
Prompt delivery of inventoried items	-	-	100
Short leadtimes for noninventoried items	-	-	100
Technical assistance availability	-	-	100
Warranties	-	-	100
Historical supplier relationship	-	-	100

<sup>1/</sup> Data supplied by 1 firm.

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

Table K-6.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. producers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Brazilian-made tiles in the U.S. market, 1982

Item	Percentage of response stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	100	-	-
Price-----	-	100	-
Quality-----	100	-	-
Aesthetic appeal-----	100	-	-
Terms of sale-----	-	100	-
Overall availability-----	100	-	-
Variety-----	100	-	-
Availability of matching trim-----	100	-	-
Accessibility of distribution outlets--	100	-	-
Prompt delivery of inventoried items-----	100	-	-
Short leadtimes for noninventoried items--	100	-	-
Technical assistance availability-----	100	-	-
Warranties-----	100	-	-
Historical supplier relationship-----	100	-	-

1/ Data supplied by 1 firm.

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

Table K-7.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. importers' competitive assessments <sup>1/</sup> of product-related factors of competition for U.S.-produced and foreign-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	60	40	-
Price-----	67	33	-
Quality-----	29	71	-
Aesthetic appeal-----	15	70	15
Terms of sale-----	50	17	33
Overall availability-----	83	17	-
Variety-----	-	100	-
Availability of matching trim-----	50	50	-
Accessibility of distribution outlets--	67	33	-
Prompt delivery of inventoried items-----	67	-	33
Short leadtimes for noninventoried items--	67	33	-
Technical assistance availability-----	83	-	17
Warranties-----	83	17	-
Historical supplier relationship-----	17	66	17

<sup>1/</sup> Data supplied by 5 firms.

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

Table K-8.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. importers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Italian-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	50	50	-
Price-----	50	50	-
Quality-----	50	50	-
Aesthetic appeal-----	-	50	50
Terms of sale-----	50	50	-
Overall availability-----	50	50	-
Variety-----	-	100	-
Availability of matching trim-----	50	50	-
Accessibility of distribution outlets--	50	50	-
Prompt delivery of inventoried items-----	100	-	-
Short leadtimes for noninventoried items--	50	50	-
Technical assistance availability-----	100	-	-
Warranties-----	100	-	-
Historical supplier relationship-----	50	50	-

1/ Data supplied by 2 firms.

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

Table K-9.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. importers' competitive assessments 1/ of product-related factors of competition for U.S.-produced and Japanese-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	33	33	34
Price-----	67	33	-
Quality-----	33	67	-
Aesthetic appeal-----	33	67	-
Terms of sale-----	67	-	33
Overall availability-----	100	-	-
Variety-----	-	100	-
Availability of matching trim-----	67	33	-
Accessibility of distribution outlets--	100	-	-
Prompt delivery of inventoried items-----	67	-	33
Short leadtimes for noninventoried items--	67	33	-
Technical assistance availability-----	100	-	-
Warranties-----	100	-	-
Historical supplier relationship-----	-	100	-

1/ Data supplied by 4 firms.

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



Table K-10.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. importers' competitive assessments 1/ of factors of competition for U.S.-produced and West German-made tiles in the U.S. market, 1982

Item	Percentage of responses stating that--		
	U.S. industry has competitive advantage in this area	Foreign industry has competitive advantage in this area	U.S. and foreign industry positions are the same in this area
Overall competitive advantage-----	100	-	-
Price-----	100	-	-
Quality-----	-	100	-
Aesthetic appeal-----	-	100	-
Terms of sale-----	-	-	100
Overall availability-----	100	-	-
Variety-----	-	100	-
Availability of matching trim-----	-	100	-
Accessibility of distribution outlets--	-	100	-
Prompt delivery of inventoried items-----	-	-	100
Short leadtimes for noninventoried items--	100	-	-
Technical assistance availability-----	-	-	100
Warranties-----	-	100	-
Historical supplier relationship-----	-	-	-

1/ Data supplied by 2 firms.

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

Table K-11.--Ceramic floor and wall tiles, glazed nonmosaic: U.S. producers' reasons for importing, 1982 1/

Item	Percentage of responses stating that--		
	Competitive : factor is very : significant in : their decision : to import	Competitive : factor is : significant in : their decision : to import	Competitive : factor is not : relevant to : their decision : to import
Price-----	50 :	17 :	33
Quality-----	33 :	33 :	34
Aesthetic appeal-----	17 :	83 :	-
Terms of sale-----	17 :	50 :	33
Overall availability-----	- :	17 :	83
Variety-----	17 :	50 :	33
Availability of	:	:	:
matching trim-----	- :	33 :	67
Accessibility of	:	:	:
distribution outlets--	- :	17 :	83
Prompt delivery of	:	:	:
inventoried items-----	- :	17 :	83
Short leadtimes for	:	:	:
noninventoried items--	17 :	33 :	50
Technical assistance	:	:	:
availability-----	- :	33 :	67
Warranties-----	- :	17 :	83
Historical supplier	:	:	:
relationship-----	- :	33 :	67

1/ Data supplied by 6 firms.

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

