UNITED STATES INTERNATIONAL TRADE COMMISSION

CLEAR SHEET GLASS FROM ROMANIA

Determination of No Injury or Likelihood Thereof in Investigation No. AA1921-163 Under the Antidumping Act, 1921, as Amended, Together With the Information Obtained in the Investigation

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UNITED STATES INTERNATIONAL TRADE COMMISSION

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[AA1921-163]

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Determination of No Injury or Likelihood Thereof

On January 12, 1977, the United States International Trade Commission received advice from the Department of the Treasury that clear sheet glass from Romania is being, or is likely to be, sold at less than fair value, within the meaning of the Antidumping Act, 1921, as amended (19 U.S.C. 160(a)). Accordingly, on January 24, 1977, the Commission instituted investigation No. AA1921-163 under section 201(a) of said act to determine whether an industry in the United States is being or is likely to be injured, or is prevented from being established, by reason of the importation of such merchandise into the United States.

Notice of the institution of the investigation and of a public hearing to be held in connection therewith was published in the Federal Register on February 1, 1977 (42 F.R. 6013). On March 8, 1977, a hearing was held in accordance with the notice, and all persons who requested the opportunity were permitted to appear by counsel or in person.

In arriving at its determination, the Commission gave due consideration to all written submissions from interested parties and information adduced at the hearing as well as information obtained by the Commission's staff from questionnaires, personal interviews, and other sources.

On the basis of the investigation, the Commission 1/ has determined by a vote of 3 to 2 (Commissioners Moore and Ablondi dissenting) that an industry in the United States is not being and is not likely to be injured, and is not prevented from being established, by reason of the importation of clear sheet glass from Romania that is being, or is likely to be sold at less than fair value within the meaning of the Antidumping Act, 1921, as amended.

1/ Commissioner Leonard did not participate in the decision.

Views of Chairman Daniel Minchew, Vice Chairman Joseph O. Parker and Commissioner Catherine Bedell

On January 12, 1977, the United States International Trade Commission (Commission) received advice from the Department of the Treasury (Treasury) that clear sheet glass from Romania is being, or is likely to be, sold at less than fair value (LTFV) within the meaning of the Antidumping Act, 1921, as amended (19 U.S.C. 160(a)). Accordingly, on January 24, 1977, the Commission instituted investigation No. AA1921-163 under section 201(a) of the act to determine whether an industry in the United States is being or is likely to be injured, or is prevented from being established, by reason of the importation of such merchandise into the United States.

The flat glass industry in the United States has changed dramatically in recent years. Technological developments in the production of float glass and consumer preference for flat glass made by this process have resulted in a shift of flat glass production from sheet glass to float glass. As a result, the number of establishments at which sheet glass is produced declined from 11 in 1972 to 7 in 1976 and with further shutdowns which have since occurred or been announced, it appears there will be only 3 firms producing sheet glass in the United States by the end of 1977. All the remaining firms producing flat glass by the sheet process are also producing flat glass by the float process.

The float glass process results in a markedly superior product which has plane and parallel surfaces and which does not require

grinding and polishing. Thus, high-quality, distortion-free glass can be produced at less cost by the float process than by the older sheet process. Flat glass produced by the float process is preferred in the market, and those producers which make flat glass by both processes frequently substitute float for sheet in their orders since float glass is readily accepted by purchasers. In view of the market acceptance and interchangeability of float for sheet, we have defined the domestic industry as consisting of the establishments operated by firms which produce flat glass by either or both production processes.

During the period 1972-76, imports of clear sheet glass from Romania ranged between 49 million and 85 million pounds. In 1975, 56 million pounds was imported, and in 1976, 85 million pounds was imported. As a share of apparent domestic consumption of flat glass, imports from Romania ranged between 2 and 3 precent in 1972-76 and amounted to 2 percent during both 1975 and 1976. The ratio of imports of clear sheet glass from Romania to domestic production of flat glass remained at approximately 2 percent during each of the years in the period 1972-76.

The domestic flat glass industry was affected by the 1974-75 recession, which impacted the construction and automobile industries. With the upturn in the economy in 1976 and the improved performance in these two industries, the flat glass industry also performed strongly.

Apparent domestic consumption of flat glass increased by approximately 30 percent from 1975 to 1976 and reached an alltime

high in 1976. Domestic producers' shipments of flat glass also increased by approximately 30 percent from 1975 to 1976 and also reached an alltime high in the latter year. While imports of clear sheet glass from Romania increased in 1976 over the level in 1975, as noted above, the penetration level of these imports did not increase, remaining at about 2 percent of both domestic consumption and production. In absolute terms, imports of clear sheet glass from Romania in 1976 were approximately the same as they had been in 1973.

During the course of its investigation, the Commission received financial data from six producers of sheet glass and/or float glass which accounted for virtually all domestic shipments of sheet glass and approximately 80 percent of domestic shipments of float glass in 1976. An examination of this data reveals that while these six producers suffered a loss on their combined operations on sheet and float glass during the 1974-75 recession, they returned to profitable operations in 1976 as their net sales climbed to an historic high. The aggregate ratio of net operating profit to net sales for these six producers on their combined sheet and float operations in 1976 kept pace with the profit level experienced by stone, clay and glass producers in that year.

When the float and sheet glass operations of the six domestic producers are examined separately, however, the long-term decline in sales of sheet glass and the shift to the float process are readily apparent. Net sales of sheet glass declined each year during the period 1972-75. The producers of sheet glass broke

even on their operations in 1976 despite the fact that domestic shipments of sheet glass were less than half of what they had been in 1972 and 1973.

In contrast, net sales of float glass increased in every year in the period 1972-76, rising from approximately $86 million to approximately $263 million. After suffering losses during the recession in 1974-75, the six domestic producers achieved an aggregate ratio of net operating profit to net sales in their float glass operations of approximately 10 percent, well above that achieved by stone, clay, and glass producers generally for the first three quarters of 1976.

Employment data also reflect the upturn in the flat glass industry in 1976 and the long-term shift from sheet to float glass production. Employment data collected by the Department of Labor reveal that the average number of workers in the flat glass industry increased from 15,800 to 16,400 between 1975 and 1976. Data collected by the Commission reveal that the number of production and related workers employed in the production of sheet glass declined by over 50 percent during the period 1972-76, while such workers employed in the production of float glass increased by approximately 30 percent in the same period.

From the third quarter of 1975 through the second quarter of 1976, which embraced the period of Treasury's investigation, the weighted average net delivered selling price of domestic sheet glass increased from $14.62 to $17.21 per 100 square feet. The

increases which occurred during this period were the largest increases achieved during the years 1972-76, the period covered by the report. Domestic sheet glass prices continued to increase through the last two quarters of 1976.

The average price of domestic float glass rose by $0.75 in the first quarter of 1976, the second largest quarterly increase in 5 years, and increased in each quarter of 1976. Thus, over the period during which Treasury determined there were LTFV imports from Romania, the prices of domestically produced sheet and float glass not only increased, but recorded some of the biggest gains in the last 5 years. In addition, domestically produced float glass undersold domestically produced sheet glass from the last quarter of 1975 through the last quarter of 1976.

The wholesale price index for flat glass recorded its largest single quarterly gain in the last 5 years during the second quarter of 1976. In our judgment, it is clear from the evidence that LTFV imports from Romania, which, as noted above, accounted for only 2 percent of domestic consumption, did not have any discernible adverse impact on the price of domestically produced flat glass.

There is nothing in this record to show that domestic producers had any inventory increases or were otherwise unable to sell flat glass at increasing prices during the period of investigation. While there were allegations of lost sales, the evidence in the record of this investigation to this effect is insufficient to establish a loss of sales which would support or warrant a determination of injury.

In summary, it is our judgment that the evidence in the record of this investigation does not establish that the domestic flat glass industry is being or is likely to be injured 1/ by imports of clear sheet glass from Romania determined by Treasury to be sold or likely to be sold at LTFV.

1/ With regard to likelihood of injury Chairman Minchew notes that the import penetration of sheet glass from Romania has remained constant at between 2 and 3 percent over the past five years. This, taken with the declining market for sheet glass and the destruction of production facilities in Romania due to the recent earthquake in the country, indicates that there is no likelihood of injury to a United States industry.

Dissenting Views of Commissioners George M. Moore and Italo H. Ablondi

In our opinion, an industry in the United States is being injured by reason of the importation into the United States of clear sheet glass from Romania which the Department of the Treasury (Treasury) determined is being, or is likely to be, sold at less than fair value (LTFV) within the meaning of the Antidumping Act, 1921, as amended. 1/

The U.S. industry

The imported article found to be sold at LTFV by Treasury is clear sheet glass from Romania. We have determined that the U.S. industry which is being injured by the LTFV imports of clear sheet glass from Romania consists of the facilities in the United States devoted to the production of clear sheet glass. At present there are four plants in the United States producing sheet glass which constitute the U.S. industry.

LTFV sales

During the period November 1, 1975, through April 30, 1976, Treasury examined sales of clear sheet glass imports from Romania. Fair value comparisons were made on all such imports and a weighted average LTFV margin of 48 percent was found. The Commission's investigation disclosed that the underselling of domestic competitors was the predominant marketing appeal of LTFV imports from Romania.

1/ Prevention of establishment of an industry is not an issue in this investigation and will not be discussed.

Market penetration

LTFV sheet glass imports from Romania increased annually during the period 1972-76. As a percentage of all clear sheet glass imports they increased from 12 to 36 percent. The average unit value (5.2 cents per square foot) of imports of Romanian single-strength sheet glass, which comprised 91 percent of imports from Romania during 1972-76, was 34 percent less than the average unit value (7.9 cents per pound) of imports from all other countries.

During the period of Treasury's investigation and through the remainder of 1976 Romanian imports continued to increase their share of the domestic sheet glass market. The ratio of sheet glass imports to domestic consumption increased from 4 percent in 1974 to 7 percent in 1975 and to 9 percent in 1976. An increasing share of the domestic sheet glass market achieved by LTFV imports occurred when there was a lessening of demand for sheet glass caused by reductions in housing and construction starts and in automotive production.

The sales impact of LTFV Romanian sheet glass was mainly directed at factory sales to customers of single-strength clear sheet glass. Single-strength sheet glass imports from Romania amounted to the equivalent of 20 percent of domestic single-strength sheet glass sales during 1975 and 1976. The ratio of LTFV import penetration is substantial and such sales, consummated on the basis of price alone, have seriously impaired the ability of the domestic sheet glass industry to compete in the domestic open market.

Notwithstanding the float glass penetration into sheet glass markets, it is clear that sheet glass has a significant position in the broader flat glass industry. Into the market of an estimated 160 million square feet of sheet glass consumed by the sash and door industry alone,

domestic sheet glass has been displaced by LTFV sheet glass sales to the extent of 50 million square feet per year.

Price suppression

The gap between domestic unprocessed single-strength clear sheet glass net delivered price and the net delivered price of single-strength unprocessed clear Romanian sheet glass increased during the period 1972-76. The prices of domestic sheet single-strength glass increased by 51 percent from the first quarter of 1972 to the last quarter of 1976 while the same comparison shows that the price of Romanian glass rose by only 19 percent. The Romanian import prices exerted a downward pressure on domestic prices, aggravating the ability of the U.S. industry to achieve profits in 1974 and 1975. The absence of LTFV Romanian imports would have permitted domestic producers to recover some of the profits lost in 1974-75.

Lost sales

Each of the four domestic sheet glass producers offered evidence of lost sales in 1975 and 1976 due to Romanian sheet glass LTFV penetration into their traditional markets. The Commission examined a sample of the sales claimed by domestic producers to have been lost to LTFV imports. Based on this information it is estimated that approximately 40 million square feet of sheet glass sales or 7 percent of domestic producers' shipments of sheet glass in 1976 were lost to Romanian LTFV sheet glass imports.

Conclusion

Accordingly, we have made an affirmative determination and find that an industry in the United States is being injured by reason of the importation of clear sheet glass from Romania that is being, or likely to be sold at LTFV with the meaning of the Antidumping Act, 1921.

INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

On January 12, 1977, the United States International Trade Commission received advice from the Treasury Department that clear sheet glass from Romania is being, or is likely to be, sold at less than fair value (LTFV) within the meaning of the Antidumping Act, 1921, as amended (19 U.S.C. 160(a)). Accordingly, on January 24, 1977, the Commission instituted investigation No. AA1921-163 under section 201(a) of the act to determine whether an industry in the United States is being or is likely to be injured, or is prevented from being established, by reason of the importation of such merchandise into the United States. The statute directs the Commission to make its determination by April 12, 1977.

A public hearing was held on March 8, 1977, in Washington, D.C. Public notice of the institution of the investigation and the hearing was duly given by posting copies of the notice at the Secretary's office in the Commission in Washington, D.C., and at the Commission's office in New York City, and by publishing the original notice in the Federal Register of February 1, 1977 (42 F.R. 6013).

The Treasury Department instituted its investigation after receiving a complaint on March 9, 1976, from counsel acting on behalf of ASG Industries, Inc., Libby-Owens-Ford Co., and PPG Industries, Inc. Treasury's notice of the antidumping proceeding was published in the Federal Register of April 8, 1976 (41 F.R. 14909).

Description of Products

The imported products covered by this report are sheet glass 1/ and float glass, 2/ in rectangles, but not further processed. For the purposes of this report, unprocessed sheet and float glass will be jointly referred to as flat glass.

Sheet glass

Sheet glass is transparent flat glass having a smooth, fire-polished surface made by machine drawing. The drawing process leaves faint ripples on the surface of the glass, which distort, to varying degrees, objects either viewed through, or reflected in, the glass. Sheet glass may be either clear or colored; however, virtually all domestic production and imports consist of the clear. It is commonly divided into three thickness (weight) classifications--thin sheet glass, window glass, and heavy sheet glass.

Thin sheet glass.--Thin sheet glass is that weighing over 4 ounces but not over 16 ounces per square foot. The lightest weights are used for microscope slides, photographic transparency mountings, and thin picture-frame glass. The heavier weights (over 12 ounces per square foot) are used in picture frames, for storm windows, and for laminating.

Window glass.--Window glass is that weighing over 16 ounces but not over 28 ounces per square foot. It is by far the most important

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1/ Sheet glass is identified in the Tariff Schedules of the United States as "drawn or blown flat glass." All sheet glass today is drawn; blown sheet glass is now obsolete.

2/ Float glass is coupled with plate glass as a tariff item in the schedules. Plate glass is now a relatively unimportant article of commerce and bears no significance is this investigation.

sheet glass category and accounted for 90 percent of domestic production of all sheet glass in 1976. It is the common glazing material for residential construction and serves, among other uses, in bookcases and in the fabrication of laminated glass and double-glazed insulating units. Window glass is generally either single strength, weighing 18 or 19 ounces per square foot, or double strength, weighing 24 or 26 ounces per square foot; the two weights in each strength are, for the most part, used interchangeably. Single-strength glass is about 3/32 inch in thickness, and double strength, about 1/8 inch. Single-strength glass accounts for about 70 percent of the consumption of window glass.

Nearly all window glass is of the dimensions "100 united inches or less;" 1/ beyond these dimensions, window glass does not provide the rigidity generally needed to avoid breakage during handling or from high winds.

Heavy sheet glass.--Heavy sheet glass is that weighing over 28 ounces per square foot. It is commonly used for tempering and for glazing large openings such as patio doors. Its use (after tempering) in automobile side and rear windows, once substantial, has now been replaced by float glass (described on the following page). Heavy sheet glass is commonly used in thicknesses of 5/32 inch, 3/16 inch, and 7/32 inch.

1/ The number of "united inches" is the sum of the length and width of a rectangle of sheet glass.

Plate and float glass

Plate glass is glass that has been ground and polished to make the glass transparent and render its surfaces virtually plane and parallel, thereby eliminating most of the distortion found, in various degrees, in sheet glass. Float glass is transparent flat glass having virtually the same optical quantities as plate glass, but is obtained by floating a layer of molten glass on molten tin rather than by grinding and polishing.

Float glass is used principally to make laminated windshields and tempered side and rear windows of motor vehicles, to glaze large openings such as store display windows and so-called curtain walls, and to make high-quality mirrors.

Production Processes

Flat glass (sheet and float glass) is made today on continuous production lines. Once production is started, it continues around the clock until interrupted by breakdown or shutdown. Flat-glass production lines cannot be shifted from one type of flat glass to another; a sheet-glass line, for example, cannot be used to produce float glass.

The raw materials (batch) used to make all flat glass are essentially the same--silica sand, limestone, soda ash, salt cake, and waste glass of the same type to be made. The batch is fed into and moves through the furnace; it emerges as molten glass from the working compartment. The batch is subjected to temperatures of about 2,900° F, which is sufficient to melt the raw materials into a liquid,

homogeneous mass. The degree of uniformity in the batch, as well as the temperature of the molten glass, affects the quality of the finished product. A decision to shut down a furnace involves heavy cost, as the glass remaining in the furnace solidifies and the furnace must be rebuilt before it is returned to operation.

Sheet glass

Sheet glass is drawn from the working compartment of the furnace as a continuous sheet of plastic glass. The speed at which it is drawn determines the thickness of the sheet. Several lines of drawing equipment are usually supplied by a single furnace. After drawing, the sheet either bends horizontally or continues vertically into an annealing lehr, where internal stresses are removed and the glass is gradually cooled. After passing through the lehr, the glass is inspected, cut to size by automatic equipment, and packaged for shipment or inventory.

Float glass

In the float process, the molten glass flows from the furnace onto a bath of molten tin. The floating of the one liquid on the other results in a glass whose surfaces are plane and parallel without mechanical grinding and polishing. Float glass technology is particularly attractive since it eliminates grinding and polishing but still turns out the same high-quality product. The technology has been licensed by Pilkington Bros. of the United Kingdom, the owner of the patent, on a worldwide basis. A shift from the

production of plate glass to that of float glass has been in progress in the United States since 1962, and float glass now accounts for almost all distortion-free glass. The natural thickness of float glass is 1/4 inch; if other thicknesses are desired, the speed of the ribbon of glass must be adjusted as it passes over the molten tin.

Extent of Competition Between Types of Flat Glass

In recent years, direct competition between the various types of flat glass has occurred in several uses. Consumers of flat glass are generally unable to distinguish between plate and float glass, and, since float glass is considerably cheaper to produce than plate, float glass displaced plate from the principal markets. Float and sheet glass have both been used in automobile side and rear windows, mirrors, tabletops, and desk covers; float glass has now captured the market for automobile glass and has displaced sheet glass in most other applications. Sash and door (including storm-sash and sliding-door) manufacturers became an important market for shipments of unprocessed float glass during 1972-76; this market increased from 4 percent of shipments to 18 percent. The selection of one type of flat glass over another is based on both quality and price; price is often the predominant factor, particularly when small surfaces are involved.

U.S. Tariff Treatment

Current rates of duty

The current most-favored-nation (MFN) 1/ rates of duty applicable to sheet glass are the result of concessions which became effective on June 30, 1958, under the General Agreement on Tariffs and Trade. These rates were suspended by Presidential Proclamations Nos. 3455 and 3458 when escape-clause rates of duty were invoked and became effective on June 18, 1962. On January 11, 1967, Presidential Proclamation No. 3762 terminated the escape-clause rates of duty on sheet glass, except window glass (sheet glass weighing over 16 ounces but not over 28 ounces per square foot) not over 100 united inches. By Proclamation No. 3967 of February 27, 1970, the President declared that existing escape-clause rates of duty on window glass were to revert to the trade-agreement rates of duty in three annual stages. The current trade-agreement rates of duty on window glass under 100 united inches were reinstated at the close of January 31, 1974 (table 1).

The current MFN rates of duty applicable to imports of float glass are the final staged rates negotiated in the Kennedy round. These rates were placed in effect on January 1, 1972 (table 2).

1/ Glass imported from countries or areas designated as Communist-dominated or Communist-controlled is subject to higher rates of duty than glass imported from countries eligible for MFN tariff treatment.

Table 1.--Sheet glass: U.S. rates of duty and imports for consumption, 1976

TSUS item No.	Article	Unit of quantity	Rate of duty		Imports 2/
			Trade-agreement rate	Statutory rate 1/	
	Glass (whether or not containing wire netting), in rectangles, not ground, not polished and not otherwise processed, weighing over 4 oz. per sq. ft.:				
	Other than cast or rolled glass, including blown or drawn glass, but excluding pressed or molded glass:				
	Ordinary glass:				1,000 dollars
	Weighing over 4 oz. but not over 12 oz. per sq. ft.:				
542.11	Measuring not over 40 united inches	Pound	0.7¢ per lb	1.5¢ per lb	1,803
542.13	Measuring over 40 united inches	do	0.9¢ per lb	1.9¢ per lb	578
	Weighing over 12 oz. but not over 16 oz. per sq. ft.:				
542.21	Measuring not over 40 united inches	do	1¢ per lb	2.1¢ per lb	1,043
542.23	Measuring over 40 but not over 60 united inches	do	1.1¢ per lb	2.4¢ per lb	128
542.25	Measuring over 60 united inches	do	1.2¢ per lb	2.5¢ per lb	251
	Weighing over 16 oz. but not over 28 oz. per sq. ft.:				
542.31	Measuring not over 40 united inches	do	0.7¢ per lb	1.5¢ per lb	4,045
542.33	Measuring over 40 but not over 60 united inches	do	0.9¢ per lb	1.9¢ per lb	5,879
542.35	Measuring over 60 but not over 100 united inches	do	1.1¢ per lb	2.4¢ per lb	3,966
542.37	Measuring over 100 united inches	do	1.4¢ per lb	2.8¢ per lb	837
	Weighing over 28 oz. per sq. ft.:				
542.42	Not over 2-2/3 sq. ft. in area	do	0.7¢ per lb	1.5¢ per lb	965
542.44	Over 2-2/3 but not over 7 sq. ft. in area	do	0.9¢ per lb	1.9¢ per lb	180
542.46	Over 7 but not over 15 sq. ft. in area	do	1.1¢ per lb	2.4¢ per lb	230
542.48	Over 15 sq. ft. in area	do	1.4¢ per lb	2.8¢ per lb	141
	Colored or special glass:				
542.57	Weighing over 4 oz. but not over 12 oz. per sq. ft	do	1.7¢ per lb	4¢ per lb	56
542.67	Weighing over 12 oz. but not over 16 oz. per sq. ft	do	6¢ per lb	13¢ per lb	18
	Weighing over 16 oz. but not over 28 oz. per sq. ft.:				
542.71	Measuring not over 40 united inches	do	0.7¢ per lb + 2.5% ad val.	1.5¢ per lb + 5% ad val.	652
542.73	Measuring over 40 but not over 60 united inches	do	0.9¢ per lb + 2.5% ad val.	1.9¢ per lb + 5% ad val.	1,230
542.75	Measuring over 60 but not over 100 united inches	do	1.1¢ per lb + 2.5% ad val.	2.4¢ per lb + 5% ad val.	793
542.77	Measuring over 100 united inches	do	1.4¢ per lb + 2.5% ad val.	2.8¢ per lb + 5% ad val.	235
	Weighing over 28 oz. per sq. ft.:				
542.92	Not over 2-2/3 sq. ft. in area	do	0.7¢ per lb + 2.5% ad val.	1.5¢ per lb + 5% ad val.	44
542.94	Over 2-2/3 but not over 7 sq. ft. in area	do	0.9¢ per lb + 2.5% ad val.	1.9¢ per lb + 5% ad val.	21
542.96	Over 7 but not over 15 sq. ft. in area	do	1.1¢ per lb + 2.5% ad val.	2.4¢ per lb + 5% ad val.	7
542.98	Over 15 sq. ft. in area	do	1.4¢ per lb + 2.5% ad val.	2.8¢ per lb + 5% ad val.	59

1/ The rate of duty currently applicable to products of countries or areas designated as Communist-dominated or Communist-controlled.

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

Table 2.--Float glass: U.S. rates of duty and imports for consumption, 1976

TSUS item No.	Article	Unit of quantity	Rate of duty		Imports 2/
			Trade-agreement rate	Statutory rate 1/	
	Glass (including plate glass and float glass), in rectangles, ground or polished on one or both surfaces in whole or in part, but not further processed:				
	Ordinary glass:				1,000 dollars
	Not containing wire netting:				
	Measuring not over 15/32 inch in thickness:				
543.21	Not over 2-2/3 sq. ft. in area	Sq. ft	1.7¢ per ft^2	12.5¢ per ft^2	86
543.25	Over 2-2/3 but not over 7 sq. ft. in area	do	2.5¢ per ft^2	17.25¢ per ft^2	40
543.27	Over 7 sq. ft. in area	do	2.8¢ per ft^2	19.75¢ per ft^2	2,247
543.31	Measuring over 15/32 inch in thickness	do	10.5% ad val.	50% ad val.	130
	Colored or special glass:				
	Measuring not over 15/32 inch in thickness:				
543.61	Not over 2-2/3 sq. ft. in area	do	1.7¢ per ft^2 + 1% ad val.	12.5¢ per ft^2 + 5% ad val.	166
543.63	Over 2-2/3 but not over 7 sq. ft. in area	do	2.5¢ per ft^2 + 5% ad val.	17.25¢ per ft^2 + 5% ad val.	208
543.67	Over 7 sq. ft. in area	do	2.8¢ per ft^2 + 1% ad val.	19.75¢ per ft^2 + 5% ad val.	4,319
543.69	Measuring over 15/32 inch in thickness	do	11.5% ad val.	55% ad val.	43

1/ The rate of duty currently applicable to products of countries or areas designated as Communist-dominated or Communist-controlled.

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

By Proclamation No. 4369, the President deleted "Rumania" from the list of countries designated as Communist dominated or Communist-controlled and accorded nondiscriminatory treatment to the products of Romania. As a result of such action, effective August 3, 1975, imports from Romania were no longer dutiable under the full rates of duty as shown in column 2 of the (TSUS), but were entered under the MFN trade-agreement rates in column 1.

History of recent Commission investigations on sheet glass

Sheet glass has been under almost constant Commission review or investigation since May 1961, when the Commission made a unanimous affirmative determination under section 7 of the Trade Agreements Extension Act of 1951 and the President invoked escape-clause rates effective June 18, 1962 (see chronology on p. A-13).

The Commission made several industry review investigations and one probable-economic-effects investigation under the Trade Expansion Act of 1962 (TEA) during the period 1963-69. In December 1969, the Commission concluded in escape-clause investigation under the TEA on which its vote was equally divided.

During 1970-72 the Commission conducted an industry review investigation, a probable-economic-effects investigation, and the last full-scale escape-clause investigation under the TEA. The final Commission escape-clause action on sheet glass was an industry review report issued on February 26, 1973.

Since 1962 the Commission has conducted six antidumping investigations on sheet glass (table 3).

Chronology of U.S. International Trade Commission investigations and of modifications of trade-agreement rates of duty on sheet glass by the President, May 1961-February 1973

Investigations		Action of the President
No. and date	Description	
No. 7-101, May 1961, Supplemental report, January 1962	Industry investigation requiring the Commission to determine whether sheet glass was, as a result in whole or in part of trade-agreement concessions granted thereon, being imported into the United States in such increased quantities, either actual or relative, as to cause or threaten serious injury to the domestic industry producing like or directly competitive products. The Commission unanimously made an affirmative finding.	Imposed escape-action rates of duty (i.e., rates higher than existing trade-agreement rates) on sheet glass, effective June 18, 1962 (Proclamation 3455, Mar. 19, 1962, and Proclamation 3458, Mar. 27, 1962).
TEA-IR-7-63, September 1963	Annual review of the escape-action rates pursuant to sec. 351(d)(1) of the Trade Expansion Act of 1962 (TEA).	
TEA-IA-4, June 1965	Report on the probable economic effects of terminating or reducing the escape-action rates of duty 1/ pursuant to sec. 351(d)(2) of the TEA.	Pursuant to sec. 351(c)(1)(a) of the TEA, the President on Jan. 11, 1967, terminated the escape-action rates of duty on all sheet glass except window glass not over 100 united inches. 2/ The escape-action rates on window glass not over 100 united inches were reduced and made effective through Oct. 11, 1967 (Proclamation 3762, Jan. 11, 1967).
TEA-IR-7-66, June 1966	Annual review of the escape-action rates pursuant to sec. 351(d)(1) of the TEA.	
TEA-I-EX-4, September 1967	Report on the probable economic effects of terminating the modified escape-action rates of duty on certain window glass pursuant to sec. 351(d)(3) of the TEA.	The modified escape-action rates of duty on window glass were continued unchanged through Dec. 31, 1969 (Proclamation 3816, Oct. 11, 1967).
TEA-IR-7-68, September 1968	Annual review of escape-action rates pursuant to sec. 351(d)(1) of the TEA.	
TEA-I-EX-6, December 1969	Report on the probable economic effects of terminating the modified escape-action rates of duty on certain window glass pursuant to sec. 351(d)(3) of the TEA.	The modified escape-action rates of duty were continued unchanged through Mar. 31, 1970 (Proclamation 3951, Dec. 24, 1969).
TEA-I-15, December 1969	Industry investigation requiring the Commission to determine whether sheet glass 3/ was, as a result in major part of concessions granted thereon under trade agreements, being imported into the United States in such increased quantities as to cause, or threaten to cause, serious injury to the domestic industry producing like or directly competitive products. The vote of the Commission was equally divided on sheet glass.	The modified escape-action rates of duty were continued unchanged until Jan. 31, 1972, after which such rates were to revert to the trade-agreement rates in 3 annual stages (Proclamation 3967, Feb. 27, 1970).

See footnotes at end of table.

Chronology of U.S. International Trade Commission investigations and of modifications of trade-agreement rates of duty on sheet glass by the President,--Continued

Investigation		Action of the President
No. and date	Description	
TEA-IR-7-71, February 1971	Annual review of the escape-action rates pursuant to sec. 351(d)(1) of the TEA.	
TEA-I-EX-7, December 1971	Report on the probable economic effects of terminating the escape-action rates of duty pursuant to sec. 351(d)(3) of the TEA.	Modified escape-action rates of duty were continued unchanged until Apr. 30, 1972 (Proclamation 4102, Jan. 29, 1972).
TEA-I-23, January 1972	Industry investigation requiring the Commission to determine whether sheet glass 3/ is, as a result in major part of concessions granted thereon under trade agreements, being imported into the United States in such increased quantities as to cause, or threaten to cause, serious injury to the domestic industry producing like or directly competitive products. The vote of the Commission was equally divided on sheet glass.	The President took no action on the Commission's 3-3 vote.
TEA-IR-7-73 February 1973	Annual review of the escape-action rates pursuant to sec. 351(d)(3) of the TEA.	No action taken. Escape-action rates of duty reverted to trade-agreement rates at close of January 31, 1974.

1/ The Commission would ordinarily have submitted an annual review to the President on Sept. 28, 1964. This annual review was not undertaken, however, because of the investigation instituted on Mar. 30, 1964, under sec. 351(d)(2).

2/ The term "united inches" means the sum of the length and width of a rectangle of glass.

3/ This investigation also covered all other forms of flat glass and tempered glass.

Table 3.--Sheet glass: Investigations conducted by the U.S. International Trade Commission under sec. 201(a) of the Antidumping Act, 1921, as amended, 1962 to the present

Year	Article	Source of imports	Finding of the Commission
1962	Sheet glass	Czechoslovakia	No injury (2-1).
1964	Window (sheet) glass	do	No injury (5-0).
1964	Do	U.S.S.R	No injury (5-0).
1971	Clear, plate, float, and sheet glass.	Japan	Injury (4-1).
1971	Sheet glass	Taiwan	Injury (2-2).
1971	Do	France, Italy, and West Germany.	Injury (3-3).

Treasury Finding of Sales at LTFV

The U.S. Treasury Department, having performed the necessary investigation, found LTFV sales of clear sheet glass from Romania during the period November 1, 1975, through April 30, 1976.

Fair-value comparisons were made on the basis of the purchase price of Romanian clear sheet glass and the price at which similar merchandise was sold by an Austrian firm in its home market. Purchase price, as defined in section 203 of the Antidumping Act, 1921, as amended (19 U.S.C. 162), was used since all export sales were made to unrelated purchasers in the United States. Purchase price was calculated by deducting a combined transportation-to-port, loading, and "other costs" figure from the f.o.b. price at the port of Constanta, Romania, adjusted to a per-square-foot value.

Since Romania is a state-controlled economy, fair-value comparisons were made by employing the price at which clear sheet glass was sold in a non-state-controlled economy, in accordance with section 153.7(a) of the customs regulations. The price of clear sheet glass sold in Austria was chosen because of the quality of the price information available, the willingness of ***, the Austrian manufacturer, to allow disclosure, and Austria's geographic proximity to Romania. The Austrian home-market price was calculated using the f.o.b. packed and delivered price adjusted to a per-square-foot value. Deductions were made for warehouse discounts, cash discounts, freight allowances, packing, and delivery costs. Further adjustments were made to account for credit terms and packing costs,

which differed to some extent in the two markets. These adjustments, in the opinion of Treasury Department officials, provided a fairer comparison of the Romanian and Austrian sales.

Treasury's investigation showed no sales, or offers of sales, of Romanian clear sheet glass weighing 16 ounces or less per square foot during the investigatory period. Therefore, its analysis and recommendations were restricted to clear sheet glass weighing over 16 ounces per square foot. Both the purchase price and the fair-value price in the Austrian market were calculated for "B" quality glass not over 70 united inches.

Fair-value comparisons were made on 100 percent of the merchandise involved, and margins were found in all comparisons. Original margin calculations yielded margins from approximately *** percent to approximately *** percent. After allowance for quality differences between the Austrian and Romanian clear sheet glass, the weighted average margin was calculated at approximately 48 percent.

The following calculations are examples constructed to yield the 48-percent margin found by Treasury. They are not drawn from the Treasury files or official Customs data; rather, they are included in order to clarify the procedure employed in arriving at a fair-value sales comparisons.

Sample calculation of purchase price for 2 mm 18-ounce sheet glass:

****

Sample calculation of fair value for 2mm 18-ounce sheet glass:

****

Comparisons:

****

Consideration of Injury

U.S. consumption

Sheet glass.--Apparent U.S. consumption of sheet glass in 1976 (*** million square feet) was *** percent higher than in 1975 (*** million square feet), but *** percent below the level of consumption in 1972 (*** billion square feet) (table 4). This decrease resulted partly from a significant decline in residential housing starts from 1972 through 1975 and partly from increasing customer preference for float glass over sheet glass.

Apparent U.S. consumption of single-strength sheet glass closely paralleled the trend of apparent consumption for all sheet glass during 1972-76. In 1976, apparent consumption of single-strength sheet glass (*** million square feet) was 24 percent higher than in 1975 (*** million square feet), but 47 percent lower than in 1972 (*** billion square feet) (table 5). During the period, the share of apparent U.S. consumption supplied by imports of all sheet glass and of single-strength sheet glass ranged between 19 percent (all sheet glass) and 33 percent (single-strength sheet glass); in 1976, the shares amounted to *** percent and *** percent, respectively.

The ratio of the apparent consumption of single-strength sheet glass to that of all sheet glass rose irregularly from *** percent in 1972 to *** percent in 1976. Single-strength sheet glass dominates U.S. apparent consumption and imports of sheet glass; therefore, this report concerns itself in major part with the single-strength designation of sheet glass, that weighing 18 and 19 ounces per square foot.

Table 4.--Sheet glass: U.S. producers' shipments, imports for consumption, exports, and apparent consumption, 1972-76

Item	1972	1973	1974	1975	1976
Producers' shipments, million ft^2	***	***	***	***	***
Imports for consumption 1/, million ft^2	537	399	224	168	209
Exports, do	2	4	1	1	2
Apparent consumption, do	***	***	***	***	***
Ratio of--					
Producers' shipments to consumption 2/, percent	70	75	81	74	74
Imports to consumption, do	30	25	19	26	26

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

2/ Exports not included.

Source: Compiled from official statistics of the U.S. Department of Commerce and from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 5.--Sheet glass weighing over 16 ounces but not over 20 ounces per square foot (single-strength sheet glass): U.S. producers' shipments, imports for consumption, exports, and apparent consumption, 1972-76

Item	1972	1973	1974	1975	1976
Producers' shipments---million ft^2--	***	***	***	***	***
Imports for consumption 1/ million ft^2--	334	258	150	135	166
Exports----------do----	2	4	1	1	2
Apparent consumption----------do----	***	***	***	***	***
Ratio of--					
Producers' shipments to consumption 2/---------percent--	67	73	79	69	70
Imports to consumption------do----	33	27	21	31	30

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

2/ Exports not included.

Source: Compiled from official statistics of the U.S. Department of Commerce and from data submitted in response to questionnaires of the U.S. International Trade Commission.

Float glass.--Apparent U.S. consumption of float glass rose from 551 million square feet in 1972 to an estimated 1.6 billion in 1976 (table 6). During the period, shipments and exports more than tripled and imports fell by 68 percent. Shipments of domestically produced float glass supply almost all of apparent domestic consumption.

Flat glass.--There are no tables indicating consolidated flat glass consumption or shipments because sheet glass and float glass quantities are not comparable. Sheet glass is reported in a single-strength equivalent of square feet on the basis that 19-ounce sheet glass weighs 58 pounds per 50 square feet. Float glass quantities are reported in actual square footage of whatever thickness measured.

Table 6.--Float glass: U.S. producers' shipments, imports for consumption, exports, and apparent consumption, 1972-76

Item	1972	1973	1974	1975	1976
Producers' shipments, million ft^2	538	829	997	1,273	1,756
Imports for consumption 1/, million ft^2	72	53	31	19	24
Exports, do	59	83	113	103	2/ 200
Apparent consumption, do	551	799	915	1,189	2/ 1,580
Ratio of--					
Producers' shipments to consumption 3/, percent	98	93	97	98	98
Imports to consumption, do	2	7	3	2	2

1/ Includes plate glass.
2/ Estimated.
3/ Exports not included.

Source: Compiled from official statistics of the U.S. Department of Commerce and from data submitted in response to questionnaires of the U.S. International Trade Commission.

U.S. producers

In 1970, sheet glass was produced by 5 firms at 14 establishments. In 1972, at the beginning of the period covered by this report, there were 4 firms producing sheet glass at 11 establishments. In 1976, sheet glass was produced at seven establishments by four firms which also produced float glass: PPG Industries Inc.; Libbey-Owens-Ford Co.; ASG Idustries, Inc.; and Fourco Glass Co. During 1976, Fourco shut down one of its sheet glass establishments, and in February 1977, it closed its two remaining sheet glass establishments; it now produces only float glass. PPG has announced plans to close one of its two sheet glass plants in late 1977, when a new float plant will begin operations, leaving the U.S. industry with three firms operating one sheet glass establishment each.

There are also three domestic firms that produce only float glass: Ford Motor Co.; Guardian Industries Corp.; and C-E Glass Division. Float glass is produced in about 25 production facilities in the United States. Domestic sheet and float glass are sold, priced, and distributed on a nationwide basis.

U.S. production and shipments

Domestic production of all sheet glass decreased from *** billion square feet in 1972 to *** million in 1976, or by 50 percent (table 7). Colored sheet glass was not produced during 1974-76.

Total shipments of sheet glass (*** billion square feet) during the period exceeded total U.S. production (*** billion square feet) by *** million square feet. Shipments of sheet glass fell sharply from *** billion square feet in 1972 to *** million square feet in 1975, and then rose somewhat in 1976 to *** million square feet (table 8).

U.S. shipments of single-strength sheet glass as a share of shipments of all sheet glass rose annually from 54 percent in 1972 to 64 percent in 1976. The increase occurred at the expense of heavy sheet and double-strength glasses, which, until recently, were more susceptible to the inroads made by float glass. From 1972 to 1976, shipments of heavy sheet glass fell from *** million to *** million square feet (or by 81 percent), and those of double-strength sheet glass decreased from *** million to *** million square feet (or by 57 percent).

Domestic production of float glass rose 168 percent during 1972-76, more than 20 percent in each year, from 669 million square feet to 1.8 billion. Production of single-strength float glass rose about 800 percent during the period.

U.S. shipments of float glass did not suffer the depression experienced by sheet glass shipments during 1972-76. Float glass shipments amounted to 538 million square feet in 1972 and increased steadily to 1.8 billion square feet in 1976, or by 226 percent.

Table 7.--Sheet glass and float glass: U.S. production, 1972-76

(In millions of square feet)

Item	1972	1973	1974	1975	1976
Sheet glass:					
Clear:					
Window:					
Single-strength	***	***	***	***	***
Double-strength	***	***	***	***	***
Total	***	***	***	***	***
Heavy	***	***	***	***	***
Thin	***	***	***	***	***
Total	***	***	***	***	***
Colored	***	***	***	***	***
Total	***	***	***	***	***
Float glass:					
Clear:					
Window:					
Single-strength	67	117	188	443	601
Double-strength	74	95	185	256	369
Total	141	212	373	699	970
Heavy	405	522	508	442	517
Total	546	734	881	1,141	1,487
Colored glass	123	192	236	214	305
Total	669	926	1,117	1,355	1,792

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

Table 8.--Sheet glass and float glass: U.S. producers' shipments, 1972-76

(In millions of square feet)

Item	1972	1973	1974	1975	1976
Sheet glass:					
Clear:					
Window:					
Single-strength	***	***	***	***	***
Double-strength	***	***	***	***	***
Total	***	***	***	***	***
Heavy	***	***	***	***	***
Thin	***	***	***	***	***
Colored glass	***	***	***	***	***
Total	***	***	***	***	***
Float glass:					
Clear:					
Window:					
Single-strength	65	116	177	427	600
Double-strength	66	98	171	254	369
Total	131	214	348	681	969
Heavy glass	280	441	444	397	491
Total	411	655	792	1,078	1,460
Colored glass	127	174	205	195	296
Total	538	829	997	1,273	1,756

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

Shipments of single-strength float glass amounted to 600 million square feet in 1976, or 9.25 times the 1972 level. Float glass shipments amounted to 92 percent of U.S. production of float glass during 1972-76.

U.S. imports

Sheet glass.--U.S. imports of sheet glass for consumption amounted to 537 million square feet in 1972 and decreased irregularly to 209 million square feet in 1976, or by 61 percent (table 9). Romania increased its share of imports from 12 percent in 1972 to 35 percent in 1976. Virtually all imports of sheet glass are those of clear sheet; imports of colored sheet glass amounted to 2.8 million square feet in 1976, of which 1.8 million was shipped from West Germany; no colored sheet glass was imported from Romania during 1972-76 (tables 10 and 11).

Romania was the leading source of imports of clear sheet glass during 1972-76, accounting for an average of 20 percent of total imports. In 1975 and 1976, 80 percent of Romanian shipments were single-strength, 18-ounce clear sheet glass, and 10 percent were single-strength, 19-ounce clear sheet glass (tables 12, 13, and 14). The unit values of the imports of clear single-strength sheet glass from Romania averaged 5.2 cents per square foot during 1972-76 and were 34 percent below the average unit value of 7.9 cents for all imports, including those from other East European and Communist countries. Sales of domestically produced single-strength sheet glass and float glass are most directly affected by the imports of clear sheet glass from Romania.

Table 9.--Sheet glass: U.S. imports for consumption, by principal sources, 1972-76

Source	1972	1973	1974	1975	1976
	Quantity (1,000 square feet) 1/				
Romania	62,401	71,149	42,325	48,345	73,622
U.S.S.R	34,773	44,646	25,542	22,158	41,097
West Germany	37,571	13,753	17,193	20,156	22,309
Mexico	5,862	4,464	6,021	9,084	8,703
Japan	51,605	34,020	14,174	8,698	7,736
Spain	22,186	19,192	18,233	9,846	6,509
Hungary	14,576	15,638	17,404	12,168	6,360
Israel	1,304	8,154	10,147	5,122	5,289
Republic of Korea	23,129	17,256	7,225	4,106	5,271
Belgium	74,298	19,691	10,978	5,862	3,554
All other	209,406	151,377	55,056	27,122	28,763
Total	537,111	399,340	224,298	172,667	209,213
	Value (1,000 dollars)				
Romania	2,909	3,714	2,034	2,382	4,703
U.S.S.R	2,130	3,251	1,675	1,197	3,511
West Germany	4,364	3,040	5,075	4,573	4,660
Mexico	485	389	547	786	795
Japan	4,375	3,353	1,740	1,431	1,289
Spain	1,828	1,832	1,563	908	663
Hungary	789	998	1,069	832	465
Israel	87	775	827	382	441
Republic of Korea	1,303	1,077	544	288	429
Belgium	8,051	3,425	2,220	1,183	1,240
All other	17,196	12,426	4,525	2,749	4,963
Total	43,517	34,280	21,819	16,711	23,159

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

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

Table 10.--Clear sheet glass: U.S. imports for consumption, by principal sources, 1972-76

Source	1972	1973	1974	1975	1976
	Quantity (1,000 square feet) 1/				
Romania	62,401	71,149	42,325	48,345	73,622
U.S.S.R	34,773	44,646	25,543	22,159	41,097
West Germany	36,240	12,586	15,846	18,524	20,479
Mexico	5,862	4,455	6,021	9,085	8,703
Japan	48,600	31,933	13,559	8,406	7,383
Spain	22,144	19,190	18,233	9,846	6,508
Hungary	14,576	15,638	17,404	12,168	6,360
Israel	1,304	8,154	10,147	5,121	5,289
Republic of Korea	23,129	17,256	7,225	4,106	5,271
Portugal	6,506	8,617	5,119	3,326	4,590
Belgium	61,240	14,342	9,686	5,545	3,307
Canada	28,895	17,605	66	3,600	2
All other	173,517	124,455	49,104	19,633	23,764
Total	519,187	390,026	220,278	169,864	206,375
	Value (1,000 dollars)				
Romania	2,909	3,714	2,034	2,382	4,703
U.S.S.R	2,130	3,251	1,675	1,197	3,511
West Germany	3,704	2,136	3,260	2,991	4,252
Mexico	485	388	547	786	795
Japan	3,916	2,968	1,585	1,362	1,177
Spain	1,818	1,832	1,563	908	663
Hungary	789	998	1,069	832	465
Israel	87	775	827	382	441
Republic of Korea	1,303	1,077	544	288	429
Portugal	485	660	321	231	276
Belgium	6,072	2,465	1,986	1,123	1,180
Canada	3,868	2,105	16	704	3
All other	12,567	9,228	3,814	1,139	2,149
Total	40,133	31,597	19,241	14,325	20,044

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

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

Table 11.--Colored sheet glass: U.S. imports for consumption, by principal sources, 1972-76

Source	1972	1973	1974	1975	1976
	Quantity (1,000 square feet) 1/				
West Germany	1,332	1,167	1,346	1,590	1,831
Japan	3,015	2,087	615	290	352
France	336	419	531	430	346
Belgium	13,059	5,350	1,291	359	247
All other	182	291	237	134	62
Total	17,924	9,314	4,020	2,803	2,838
	Value (1,000 dollars)				
West Germany	660	909	1,384	1,582	2,312
Japan	459	385	155	69	112
France	220	337	614	573	573
Belgium	1,979	954	235	65	60
All other	66	98	190	97	58
Total	3,384	2,683	2,578	2,386	3,115

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

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

Table 12.--Clear sheet glass, weighing over 16 ounces but not over 20 ounces per square foot (single-strength sheet glass): U.S. imports for consumption, by principal sources, 1972-76

Source	1972	1973	1974	1975	1976
	Quantity (1,000 square feet) 1/				
Romania	59,174	64,200	37,269	46,474	64,012
U.S.S.R	32,585	39,888	24,880	22,043	41,044
West Germany	20,730	4,487	6,644	9,038	12.002
Poland	10,990	10.609	7,485	6,964	10.047
Mexico	4,438	3.115	5,613	8,812	8,703
Japan	34,083	21.466	8,040	6,567	5,802
Hungary	14,544	15,078	16,803	11,583	1,373
All other	157,926	99,460	43,566	23,708	22,982
Total	334,470	258,303	150,300	134,829	165,965
	Value (1,000 dollars)				
Romania	2,705	3,340	1,788	2,274	3,977
U.S.S.R	1,965	2,866	1,636	1,193	3,507
West Germany	1,704	442	742	1,149	1,549
Poland	626	655	474	358	616
Mexico	348	268	507	759	790
Japan	2,592	1,853	851	791	770
Hungary	787	969	1,029	2,078	82
All other	12,649	8,402	3,512	2,286	1,871
Total	23,376	18,795	10,539	9,390	13,162
	Unit value (cents per square foot)				
Romania	4.6	5.2	4.8	4.9	6.2
U.S.S.R	6.0	7.2	6.6	5.4	8.5
West Germany	8.2	9.9	11.2	12.7	12.9
Poland	5.7	6.2	6.3	5.1	6.1
Mexico	7.8	8.6	9.0	8.6	9.1
Japan	7.6	8.6	10.6	12.0	13.3
Hungary	5.4	6.4	6.1	6.8	6.0
All other	8.0	8.4	8.1	8.8	8.1
Average	7.0	7.3	7.0	7.0	7.9

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

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

Table 13.--Clear sheet glass, weighing over 16 ounces but not over 18.5 ounces per square foot: U.S. imports for consumption, by principal sources, 1972-76

	1972	1973	1974	1975	1976
	Quantity (1,000 square feet) 1/				
Romania	38,374	49,815	33,161	43,025	54,940
U.S.S.R	32,216	39,252	24,501	21,389	38,567
Poland	10,117	9,780	7,339	6,318	8,840
West Germany	10,644	1,598	4,398	8,384	8,839
Mexico	1,860	1,702	4,035	6,336	7,641
Hungary	14,287	15,078	16,403	11,583	5,798
Japan	9,611	5,170	1,420	1,042	836
Belgium	12,587	2,564	232	627	442
All other	83,079	60,165	31,543	12,138	12,428
Total	212,775	185,124	123,032	110,842	138,331
	Value (1,000 dollars)				
Romania	1,892	2,596	1,615	2,094	3,398
U.S.S.R	1,941	2,824	1,611	1,159	3,346
Poland	581	607	466	330	539
West Germany	900	137	520	834	1,105
Mexico	149	147	354	529	696
Hungary	772	969	1,012	788	428
Japan	769	447	167	142	122
Belgium	1,165	279	26	69	74
All other	6,085	4,758	2,578	982	915
Total	14,254	12,764	8,349	6,927	10,623
	Unit value (cents per square foot)				
Romania	4.9	5.2	4.9	4.9	6.2
U.S.S.R	6.0	7.2	6.6	5.4	8.7
Poland	5.7	6.2	6.3	5.2	6.1
West Germany	8.5	8.6	11.8	9.9	12.5
Mexico	8.0	8.6	8.8	8.3	9.1
Hungary	5.4	6.4	6.2	6.8	7.4
Japan	8.0	8.6	11.8	13.6	14.6
Belgium	9.3	10.9	11.2	11.0	16.7
All other	7.3	7.9	8.2	8.1	7.4
Average	6.7	6.9	6.8	6.2	7.7

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

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

Table 14.--Clear sheet glass, weighing over 18.5 ounces but not over 20 ounces per square foot: U.S. imports for consumption, by principal sources, 1972-76

Source	1972	1973	1974	1975	1976
	Quantity (1,000 square feet) 1/				
Romania	20,800	14,385	4,108	3,449	9,072
Japan	24,472	16,296	6,620	5,525	4,966
West Germany	10,086	2,889	2,246	2,972	3,163
U.S.S.R	369	636	379	654	2,477
Israel	369	1,487	3,142	1,972	2,339
Poland	873	829	146	646	1,207
Mexico	2,578	1,413	1,578	2,476	1,062
All other	62,148	35,244	9,049	6,293	3,348
Total	121,695	73,179	27,268	23,987	27,634
	Value (1,000 dollars)				
Romania	813	744	173	180	579
Japan	1,823	1,406	684	649	648
West Germany	804	305	222	315	444
U.S.S.R	24	42	25	34	161
Israel	27	129	245	139	215
Poland	45	48	8	28	77
Mexico	199	121	153	230	94
All other	5,387	3,236	680	888	321
Total	9,122	6,031	2,190	2,463	2,539
	Unit value (cents per square foot)				
Romania	3.9	5.2	4.2	5.2	6.4
Japan	7.4	8.6	10.3	11.7	13.0
West Germany	8.0	10.6	9.9	10.6	14.0
U.S.S.R	6.5	6.6	6.6	5.2	6.5
Israel	7.3	8.7	7.8	7.0	9.2
Poland	5.2	5.8	5.5	4.3	6.4
Mexico	7.7	8.6	9.7	9.2	8.8
All other	8.7	9.2	7.5	14.1	9.6
Average	7.5	8.2	8.0	10.3	9.2

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

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

In 1976, imports of clear sheet glass weighing over 20 ounces but not over 28 ounces per square foot amounted to 15.8 million square feet (table 15), clear heavy sheet glass imports (those weighing over 28 ounces per square foot), to 10.8 million square feet (table 16), and imports of thin sheet glass, to 13.8 million square feet (table 17).

Traditionally, imports of sheet glass had been supplied by the market economies of Western Europe and Japan; this still held true in 1972, the beginning of the period under review (table 18). In that year, all market economies supplied 73 percent of sheet glass imports (393 million square feet). By 1976, imports from these sources had dwindled to 73 million square feet (less than imports of clear sheet glass from Romania during that year), and accounted for only 35 percent of total imports.

Nonmarket economies, which now dominate imports, increased their share of clear sheet glass imports from 28 percent in 1972 to 66 percent in 1976. Nonmarket economies include countries or areas designated in the TSUS as Communist-dominated or Communist-controlled, plus Poland, Romania, and Yugoslavia.

Float glass.--U.S. imports of float glass are mainly from Canada, which supplied more than 50 percent of total imports during 1972-76 (table 19). Imports, which totaled 72 million square feet in 1972, fell sharply to 19 million in 1975, and then rose to 24 million square feet in 1976.

Table 15.--Clear sheet glass, weighing over 20 ounces, but not over 28 ounces per square foot: U.S. imports for consumption, by principal sources, 1972-76

Source	1972	1973	1974	1975	1976
	Quantity (1,000 square feet) 1/				
Romania	2,975	4,430	1,288	1,104	3,857
Spain	2,804	1,573	1,713	2,677	1,774
Portugal	982	1,815	2,325	1,043	1,481
Israel	191	2,662	2,493	866	1,448
West Germany	10,320	2,387	1,587	1,038	1,321
Poland	1,193	1,319	587	674	1,025
Japan	13,417	8,707	3,990	1,412	980
Republic of Korea	2,508	3,454	1,165	1,434	665
Republic of the Philippines	3,614	5,519	189	132	215
Republic of China	6,837	7,493	4,080	173	64
U.S.S.R	2,188	4,569	125	116	53
All other	32,899	12,144	6,732	6,475	2,939
Total	79,928	56,072	26,274	17,144	15,822
	Value (1,000 dollars)				
Romania	191	253	66	56	312
Spain	254	176	151	246	176
Portugal	89	135	146	77	107
Israel	11	277	209	76	103
West Germany	904	272	181	129	340
Poland	60	74	33	30	52
Japan	1,152	814	473	194	133
Republic of Korea	160	237	87	103	59
Republic of the Philippines	258	418	17	15	26
Republic of China	571	688	394	18	5
U.S.S.R	166	352	9	5	4
All other	3,195	1,084	506	189	248
Total	7,011	4,780	2,272	1,138	1,565

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

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

Table 16.--Clear heavy sheet glass, weighing over 28 ounces per square foot: U.S. imports for consumption, by principal sources, 1972-76

Source	1972	1973	1974	1975	1976
	Quantity (1,000 square feet) 1/				
Romania	116	2,447	776	635	4,098
Spain	5,906	6,293	7,855	2,865	2,789
West Germany	2,077	713	249	590	693
Israel	146	2,958	3,171	560	385
Belgium	19,796	2,208	2,736	599	279
All other	66,984	46,616	9,880	1,715	2,585
Total	95,025	61,235	24,667	6,964	10,829
	Value (1,000 dollars)				
Romania	5	118	45	45	308
Spain	410	567	607	242	264
West Germany	337	282	168	479	627
Israel	12	284	276	44	39
Belgium	1,950	502	386	85	53
All other	4,386	3,383	767	163	224
Total	7,100	5,136	2,249	1,058	1,515
	Unit value (cents per square foot)				
Romania	4.3	4.8	5.8	7.1	7.5
Spain	6.9	9.0	7.7	8.4	9.5
West Germany	16.2	39.6	67.5	81.2	90.5
Israel	8.2	9.6	8.7	7.9	10.1
Belgium	9.9	22.7	14.1	14.2	19.0
All other	6.5	7.3	7.8	9.5	8.7
Average	7.5	8.4	9.1	15.2	14.0

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

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

Table 17.--Clear sheet glass, weighing not over 16 ounces per square foot: U.S. imports for consumption, by principal sources, 1972-76

Source	1972	1973	1974	1975	1976
	Quantity (1,000 square feet) 1/				
West Germany	3,530	5,000	7,366	5,541	6,462
Belgium	3,869	4,572	6,218	4,238	2,408
Switzerland	8	35	28	300	1,821
Romania	137	72	2,992	37	1,654
Republic of Korea	319	1,448	404	167	882
Japan	700	1,760	1,529	427	217
All other	1,201	1,529	500	217	315
Total	9,764	14,416	19,037	10,927	13,759
	Value (1,000 dollars)				
West Germany	760	1,088	2,169	1,234	1,735
Belgium	777	1,220	1,497	956	1,014
Switzerland	7	41	34	125	594
Romania	8	4	136	1	106
Republic of Korea	15	80	27	12	81
Japan	128	299	261	381	230
All other	167	154	57	29	42
Total	1,862	2,886	4,181	2,738	3,802

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

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

Table 18.--Sheet glass: U.S. imports for consumption, by types and by sources, 1972-76

(In thousands of square feet) 1/

Item	1972	1973	1974	1975	1976
Clear sheet glass:					
Weighing not over 16 ounces per square foot:					
Market economies	9,562	14,156	16,008	10,890	12,076
Nonmarket economies 2/	202	260	3,029	37	1,683
Total	9,764	14,416	19,037	10,927	13,759
Weighing over 16 ounces but not over 20 ounces per square foot:					
Market economies	209,676	123,428	62,448	46,946	42,684
Nonmarket economies	124,794	134,875	87,852	87,883	123,281
Total	334,470	258,303	150,300	134,829	165,965
Weighing over 20 ounces but not over 28 ounces per square foot:					
Market economies	73,266	44,580	23,608	10,353	9,560
Nonmarket economies	6,662	11,492	2,666	6,791	6,262
Total	79,928	56,072	26,274	17,144	15,822
Weighing over 28 ounces per square foot:					
Market economies	82,221	46,952	22,074	5,917	5,499
Nonmarket economies	12,804	14,083	2,593	1,047	5,330
Total	95,025	61,235	24,667	6,964	10,829
Total clear sheet glass:					
Market economies	374,724	228,816	124,038	74,106	69,819
Nonmarket economies	144,463	161,210	96,240	95,758	136,556
Total	519,187	390,026	220,278	169,864	206,375
Colored sheet glass:					
Market economies	17,924	9,236	4,008	2,766	2,838
Nonmarket economies		78	12	37	
Total	17,924	9,314	4,020	2,803	2,838
Total sheet glass:					
Market economies	392,648	238,052	128,046	76,872	72,657
Nonmarket economies	144,463	161,288	96,252	95,795	136,556
Grand total	537,111	399,340	224,298	172,667	209,213

1/ Converted from pounds on the basis of 58 pounds per 50 square feet, single-strength equivalent.

2/ Nonmarket economies include countries or areas designated in the TSUS as Communist-dominated or Communist-controlled, plus Poland, Romania, and Yugoslavia.

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

Table 19.--Float glass: U.S. imports for consumption, by principal sources, 1972-76

Source	1972	1973	1974	1975	1976
	Quantity (1,000 square feet)				
Canada	29,856	29,844	17,444	10,690	12,287
Japan	12,621	11,291	6,988	3,711	4,076
United Kingdom	10,302	5,225	3,157	2,450	2,690
Australia	2		3	12	1,712
Belgium	10,354	2,927	1,387	596	1,503
Mexico	109	76	115	154	671
West Germany	3,905	1,339	93	718	607
All other	6,299	2,119	1,377	570	55
Total	72,378	52,745	30,564	18,901	23,601
	Value (1,000 dollars)				
Canada	8,057	8,175	4,447	2,603	3,179
Japan	5,091	4,562	3,075	1,667	1,560
United Kingdom	2,876	1,874	1,151	910	797
Australia	1		1	3	485
Belgium	4,032	1,087	548	204	618
Mexico	32	38	35	36	184
West Germany	1,658	573	112	232	226
All other	1,986	1,053	823	384	190
Total	23,733	17,362	10,192	6,039	7,239

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

U.S. exports

Sheet glass exports, mostly to Canada, are very small and amount to less than *** percent of U.S. shipments. Float glass exports have been substantial; they amounted to 103 million square feet in 1975 and increased by 50 percent in the first 10 months of 1976 to 155 million square feet (table 20). Canada was the main market, accounting for over 70 percent of such exports during the period January 1972-October 1976.

Table 20.--Float glass: U.S. exports of domestic merchandise, by principal markets, 1972-75, January-October 1975, and January-October 1976

Item	1972	1973	1974	1975	January-October--	
					1975	1976
	Quantity (1,000 square feet)					
Canada	52,502	63,474	72,605	75,823	56,680	112,075
Finland		100	2,386	6,746	5,684	5,607
Venezuela	1,207	2,489	3,524	4,571	3,851	5,958
Australia	1,256	3,071	4,689	2,570	2,041	6,448
All other	4,299	13,780	30,100	13,473	10,272	25,075
Total	59,264	82,914	113,304	103,183	78,528	155,263
	Value (1,000 dollars)					
Canada	16,132	19,881	23,939	24,944	18,596	37,647
Finland		24	619	1,533	1,289	1,223
Venezuela	526	1,169	1,549	1,927	1,435	3,328
Australia	843	1,900	3,398	1,779	1,451	3,285
All other	1,876	5,316	13,371	6,970	5,451	10,535
Total	19,377	28,290	42,876	37,053	28,222	56,018

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

Employment

The Department of Labor collects monthly data on total employment and average weekly hours worked by production and related workers in the flat glass industry. 1/ The annual averages of these data are presented below:

	Average number of employees	Average weekly hours worked by production and related workers
1972	24,500	43.0
1973	25,200	43.9
1974	22,000	42.2
1975	15,800	40.4
1976	16,400	42.7

Figures show a recovery in 1976 from the depressed employment situation during 1975. The declining employment and weekly hours data reflect the response of the flat glass industry to slackened demand for autos and construction materials during the 1974-75 recession. In turn, the recovery of the economy in 1976 is reflected in the 1976 recovery in employment and hours worked.

The Commission received data on employment of all persons, employment of production and related workers, and man-hours worked by production and related workers in sheet and float glass establishments during 1972-76 from responses to questionnaires (table 21). The data show a sharp decline in employment in the sheet glass establishments and strong gains in employment, especially among all employees, in the float glass sector. Total employment in flat glass establishments rose by *** percent from 1972 to 1976, while employment of production and related workers fell by ***

1/Data reported by the Department of Labor include sheet, float, plate, rolled, and wire glass.

Table 21.--Average number of employees, total and production and related workers, man-hours worked by the latter, and output per man-hour in establishments producing unprocessed sheet glass and float glass, 1972-76

Item	1972	1973	1974	1975	1976
	Employment				
Unprocessed sheet glass:					
All persons	***	***	***	***	***
Production and related workers	***	***	***	***	***
Unprocessed float glass:					
All persons	8,572	9,681	10,423	9,759	11,023
Production and related workers	6,848	7,732	8,325	7,696	8,862
	Total man-hours worked by production and related workers				
Unprocessed sheet glass:					
1,000 hours	***	***	***	***	***
Unprocessed float glass:					
1,000 hours	15,885	17,507	18,057	15,790	19,683
	Output per man-hour				
Unprocessed sheet glass:					
Square feet	***	***	***	***	***
Unprocessed float glass:					
Square feet	42	53	62	86	91

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

percent from 1972 to 1975 and then increased by * * * percent in 1976. The decline in employment in sheet glass establishments reflects exit from operation by a number of sheet glass plants. Much of the increase in employment on float glass is due to the increase in the number of operating establishments, which balanced the exit from sheet glass operations mentioned above.

The trend in man-hours worked by production and related workers parallels the employment situation in both sectors. While the sheet glass aggregates show a decline of * * * percent in man-hours worked from 1972 to 1976, man-hours worked by float glass production and related workers increased by twenty-four percent during the same period. The number of man-hours worked in the two sectors combined fell * * * percent in 1975, but recovered in 1976, increasing by * * * percent.

Output per man-hour was calculated for sheet glass and float glass. Since production data are not directly comparable, productivity for all flat glass could not be computed. The sheet and float glass categories yielded differing trends through 1975: sheet glass productivity declined without interruption, while float glass output per man-hour showed steady gains. The two categories yielded a marked difference in the absolute level of productivity; however, until sheet glass productivity spurted in 1976, the margin between the two had been declining steadily. Productivity in float glass establishments increased without interruption from 42 square feet per man-hour in 1972 to 91 square feet per man-hour in 1976. Sheet glass productivity declined *** percent from 1972 to 1975 and then increased by * * * percent to a 5-year peak of * * * * * * * * * * square feet per man-hour in 1976.

Factory sales of U.S. producers' shipments

Factory sales of sheet glass to customers maintained fairly constant end-use patterns during 1974-76, although the square footage of sales fluctuated (table 22). During the 3-year period, customer sales fell drastically from *** million square feet in 1974 to *** million in 1975 and then rose to *** million in 1976.

Factory sales of float glass, on the other hand, more than doubled between 1974 and 1976, increasing from 641 million to 1.3 billion square feet (table 23). The percentage of sales to traditional markets was fairly steady, but there was a drop in the percentage of intracompany transfers for processing. Sales to customers in the open market increased from 377 million square feet in 1974 to 925 million in 1976, or by 150 percent.

Table 22.--Clear sheet glass: U.S. producers' shipments of factory sales, by types of outlets, 1974-76

Type of outlet	1974	1975	1976
	Quantity (million square feet)		
Factory sales to customers:			
Sash and door (including storm-sash and sliding-door) manufacturers	***	***	***
Temperers (except automobile manufacturers)	***	***	***
Mirror manufacturers	***	***	***
Other	***	***	***
Total			
Intracompany transfers for processing	***	***	***
Total shipments	***	***	***
	Percent of total		
Factory sales to customers:			
Sash and door (including storm-sash and sliding-door) manufacturers	***	***	***
Temperers (except automobile manufacturers	***	***	***
Mirror manufacturers	***	***	***
Other	***	***	***
Total	***	***	***
Intracompany transfers for processing	***	***	***
Total shipments	***	***	***

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

Table 23.--Clear Float glass: U.S. producers' shipments of factory sales, by types of outlets, 1974-76

Type of outlet	1974	1975	1976
	Quantity (million square feet)		
Factory sales to customers:			
Sash and door (including storm-sash and sliding-door) manufacturers	75.2	163.6	221.6
Temperers (except automobile manufacturers)	21.0	32.0	59.8
Automobile manufacturers	7.0	8.1	9.5
Mirror manufacturers	64.8	104.3	137.4
Other	209.0	320.5	496.9
Total	377.0	628.5	925.2
Intracompany transfers for processing	264.2	325.5	370.5
Total shipments	641.2	954.0	1,295.7
	Percent of total		
Factory sales to customers:			
Sash and door (including storm-sash and sliding-door) manufacturers	11.7	17.2	17.1
Temperers (except automobile manufacturers)	3.3	3.4	4.6
Automobile manufacturers	1.1	.8	.7
Mirror manufacturers	10.1	10.9	10.6
Other	32.6	33.6	38.4
Total	58.8	65.9	71.4
Intracompany transfers for processing	41.2	34.1	28.6
Total shipments	100.0	100.0	100.0

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

Consideration of the Causal Relationship Between LTFV Imports and the Alleged Injury

Market penetration of LTFV sales

During the period of the U.S. Treasury Department's investigation, November 1, 1975, through April 30, 1976, LTFV imports of clear sheet glass from Romania amounted to 28 percent (25.5 million square feet) of total imports of clear sheet glass (91.2 million square feet). Romania's share of total U.S. imports of clear sheet glass was 12 percent in 1972, and rose, annually to 36 percent (73.6 million square feet) in 1976. Such imports accounted for 9 percent of apparent U.S. consumption in 1976.

Evidence of sales lost by domestic producers to LTFV imports from Romania

Each of the four companies which produced sheet glass during 1972-76 presented specific information to the Commission on sales lost to LTFV imports of clear sheet glass from Romania. Each claimed substantial losses of customers and/or a percentage of sales to established customers. The lost sales were attributed solely to the availability of lower-priced Romanian sheet glass. Each company presented its data on lost sales in a different form, i.e., in quantity, in value, as a percentage of customers' sales, or in a combination of these forms. The amount by which the weighted-average delivered price of Romanian sheet glass was below the price of domestic sheet glass was at its greatest, 20.4 percent, during January-March 1976.

Prices

U.S. producers publish prices of sheet glass in terms of common specifications long used in the industry. The published prices vary directly with the thickness and the area of the light (piece) of glass. They also vary with the quality and the type of packing (usually boxes of glass are packed in light, standard, or heavy pallets). Most prices for thin sheet glass are quoted in terms of boxes of either 50 square feet of 100 square feet, while some prices are quoted in square feet only. Domestic producers usually publish list prices that are subject to both trade and terms-of-payment (cash) discounts.

The U.S. sales agents of foreign sheet glass manufacturers base their published prices on the same format of specifications as the domestic producers, varying the quoted prices with the thickness and area of the light. Published prices for these agents also vary with the quality of the glass and the type of packing.

U.S. producers of float glass publish list prices in much the same way that prices are denominated for domestic sheet glass. The price per square foot varies directly with the thickness of the glass and the size of the light; cut sizes are higher in price per square foot than specified standard sizes and stock sheets.

Unit value data for domestic sheet and other flat glass, Romanian sheet glass, and sheet glass from other foreign sources are shown in table 24. Domestic flat glass is divided into two sectors:

Table 24.--Unit values and wholesale price indexes of flat glass, by quarters, 1972-76

Period	Unit values						Wholesale price	
	Sheet glass	Other flat glass 1/	All flat glass	Sheet glass from Romania 2/		Sheet glass from other foreign sources	Window (sheet) glass	Flat glass
				Cents per ft^2	Cents per lb.			
	Cents per ft^2	Cents per ft^2	Cents per ft^2			Cents per lb		
1972:								
Jan.-Mar.	13.2	33.4	22.6	3.6	3.2	7.1	129.1	123.2
Apr.-June	13.0	33.2	22.5	4.3	3.8	7.6	127.9	121.2
July-Sept.	13.0	32.0	22.7	5.0	4.5	7.3	128.5	122.5
Oct.-Dec.	13.1	31.7	23.1	5.1	4.5	7.4	127.4	122.5
1973:								
Jan.-Mar.	13.0	31.1	22.7	5.7	5.1	7.4	130.4	123.0
Apr.-June	13.3	31.4	22.8	4.8	4.2	7.9	135.3	124.2
July-Sept.	13.5	31.3	23.6	4.8	4.2	8.6	135.3	118.0
Oct.-Dec.	14.1	29.5	23.3	4.9	4.4	8.7	144.9	120.8
1974:								
Jan.-Mar.	14.5	31.5	23.8	5.8	5.2	8.4	151.7	124.6
Apr.-June	14.3	29.7	23.6	4.7	4.2	9.5	151.7	126.0
July-Sept.	14.8	28.7	23.4	4.4	3.9	9.7	159.2	130.1
Oct.-Dec.	15.2	27.5	23.5	4.5	4.0	10.2	170.9	134.4
1975:								
Jan.-Mar.	16.0	26.2	23.6	4.7	4.2	11.5	170.9	135.0
Apr.-June	16.7	24.8	23.2	4.6	4.1	10.3	174.0	137.5
July-Sept.	16.9	24.5	22.9	4.5	4.0	10.1	177.6	140.9
Oct.-Dec.	17.3	25.5	23.5	5.2	4.6	9.7	188.1	143.3
1976:								
Jan.-Mar.	17.7	25.3	23.5	5.5	4.9	10.9	195.3	144.1
Apr.-June	18.2	25.4	23.9	6.2	5.5	11.2	210.1	150.2
July-Sept.	19.0	26.6	25.1	6.6	5.8	12.6	210.1	152.9
Oct.-Dec.	3/	3/	3/	6.1	5.5	12.4	210.1	152.9

1/ Includes sheet, float, plate, rolled, and wire glass.

2/ Data converted from cents per pound to cents per square foot at the ratio of 1.125 pounds to 1 square foot.

3/ Not available.

Source: Unit values compiled from official statistics of the U.S. Department of Commerce; wholesale price indexes compiled by the U.S. Bureau of Labor Statistics.

sheet glass and "other flat glass," which consists of plate, float, rolled, and wire glass. Since float glass accounts for about 90 percent of domestic shipments in the "other flat glass" category, unit values for "other flat glass" may be used as a proxy for float glass unit values.

All domestic flat flass shipments are either recorded on a square-foot basis or easily converted to square feet; hence, unit values are in cents per square foot. Imported sheet glass, on the other hand, is denominated in pounds and enters in categories which include a range of weights (e.g., over 16 ounces but not over 18½ ounces per square foot). For purposes of comparison on a standard basis, unit values for Romanian sheet glass were converted from cents per pound to cents per square foot at the ratio of 1.125 pounds per 1 square foot. This is believed to be an optimal choice of ratios since it is known that, historically, approximately 80 percent of Romanian sheet glass has entered the United States in the 16-18½ ounce weight bracket, and the preponderance of glass in this category is 18 ounces (1.125 pounds) per square foot.

In addition to the unit value data presented in table 24, whole-sale price indexes for domestic sheet glass and all domestic flat glass are presented. These data are based upon responses of four domestic flat glass producers and are likely to be somewhat less reliable than unit data, which are derived from a survey of all U.S. producers.

Recent unit value data show that both Romanian sheet glass and domestic sheet glass unit values have risen, while unit values of "other flat glass" have declined. The latter trend is largely due to the substitution of float glass for plate glass. Although Romanian glass unit values are substantially lower than unit values in both domestic flat glass categories, it should be noted that import unit values are f.o.b., port of export, while domestic unit values are f.o.b., U.S. factory.

In order to augment unit value data, net delivered prices of single-strengh unprocessed clear sheet glass and float glass measuring over 40 but not over 60 united inches were requested by the Commission and submitted by domestic manufacturers. According to industry representatives, this category in both sheet and float glass best represents price trends in the respective glass sectors. The Commission collected data on net delivered prices of single-strength unprocessed clear sheet glass from Romania and from other foreign sources as well in order to be able to compare these prices with the prices of similar domestic merchandise at the same level of distribution. These data are presented as industry or category averages and weighted averages in table 25. In addition, weighted average prices of domestic sheet glass and float glass and Romanian sheet glass are presented in graphic form in the figure on page A-55.

The most striking aspect of these data is the closeness of net delivered prices in the two domestic sheet and float glass categories. On a square-foot basis, the largest discrepancy between net delivered prices of comparable float glass and sheet glass was 0.7 cents for 1972-76.

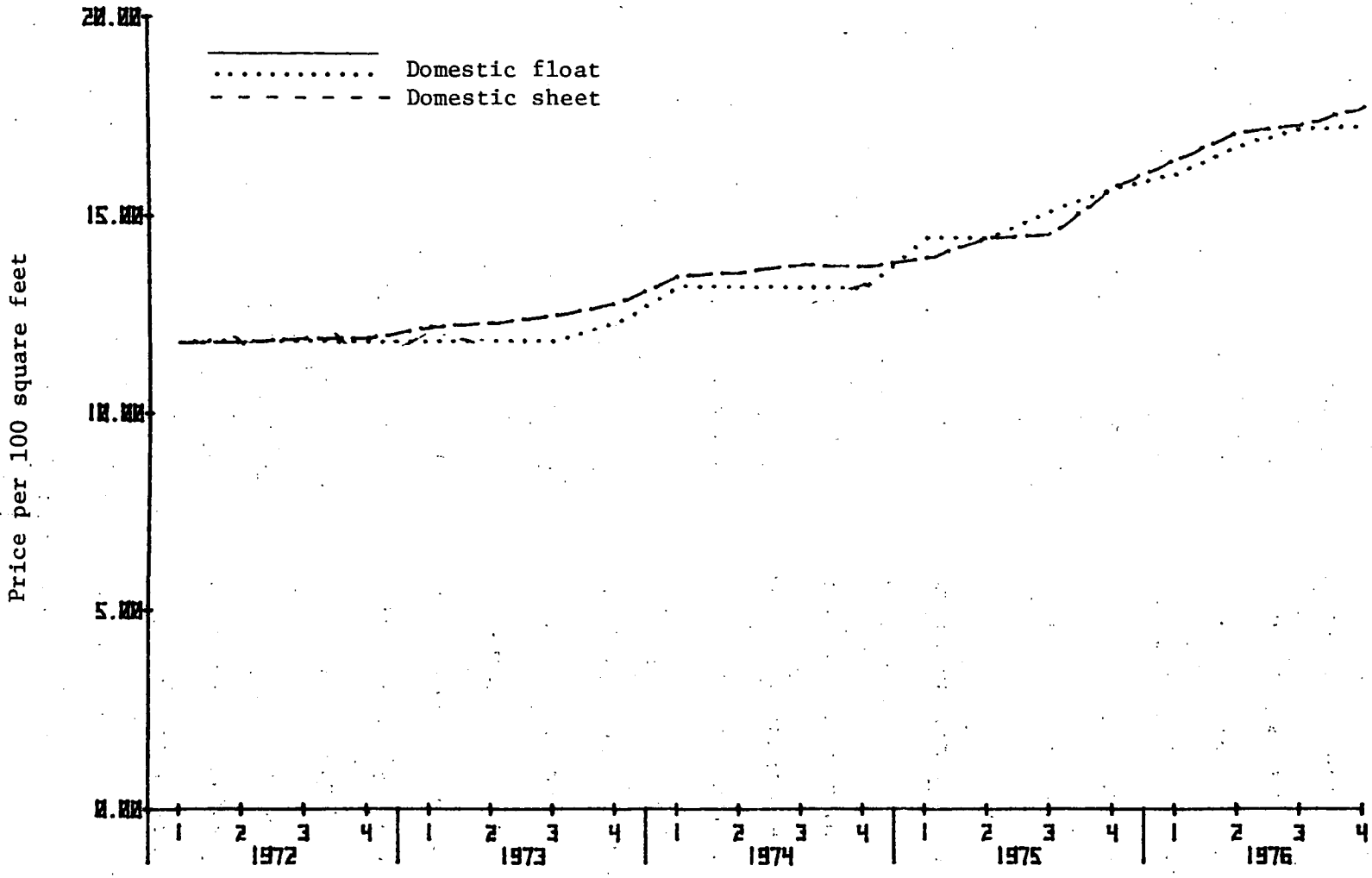
Table 25.--Net delivered prices of domestic uprocessed single-strength clear sheet glass, float glass, flat glass, and imported sheet glass from Romania and other foreign sources, by quarters, 1972-76

(Per 100 square feet)

Period	Average prices				Weighted average prices			
	Domestic sheet glass	Domestic sheet glass	Domestic sheet glass	Sheet glass from other Romania foreign sources	Domestic sheet glass	Domestic sheet glass	Domestic sheet glass	Sheet glass from Romania
1972:								
Jan.-Mar.---	$11.39	$12.10	$11.62	$12.18	$11.80	$11.82	$11.80	$12.87
Apr.-June----	11.42	12.07	11.64	12.48	11.80	11.82	11.80	11.84
July-Sept.---	11.52	12.10	11.71	11.98	11.90	11.82	11.89	12.80
Oct.-Dec.----	11.50	12.15	11.71	11.94	11.91	11.82	11.91	11.24
1973:								
Jan.-Mar.----	11.69	12.23	11.87	12.07	12.15	11.84	12.10	12.06
Apr.-June----	11.91	12.29	12.03	12.15	12.33	11.85	12.26	11.72
July-Sept.---	12.03	12.44	12.17	12.10	12.53	11.85	12.43	11.63
Oct.-Dec.----	12.24	12.89	12.46	11.64	12.84	12.29	12.76	12.23
1974:								
Jan.-Mar.----	13.15	13.48	13.26	12.49	13.54	13.23	13.47	12.51
Apr.-June----	13.14	13.52	13.27	12.51	13.57	13.24	13.49	12.45
July-Sept.---	13.28	13.66	13.40	13.06	13.81	13.24	13.67	12.79
Oct.-Dec.----	13.23	14.48	13.76	12.25	13.75	13.21	13.62	13.28
1975								
Jan.-Mar.----	13.52	15.09	14.42	12.88	14.02	14.53	14.36	12.69
Apr.-June----	13.92	14.81	14.36	12.76	14.46	14.54	14.50	13.96
July-Sept.---	14.07	15.46	14.87	12.04	14.62	15.20	15.00	13.13
Oct.-Dec.----	15.10	15.32	15.22	12.28	15.76	15.76	15.76	13.42
1976:								
Jan.-Mar.----	16.16	16.07	16.10	13.21	16.54	16.12	16.26	12.94
Apr.-June----	16.68	16.23	16.41	14.35	17.21	16.85	17.01	14.23
July-Sept.---	16.62	16.85	16.77	15.48	17.41	17.34	17.36	14.59
Oct.-Dec.----	17.10	17.08	17.09	15.22	17.85	17.35	17.57	15.36

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

Figure 2.--Net delivered prices of domestic unprocessed single strength clear sheet glass and float glass and clear sheet glass from Romania, 1972-76



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

The gap between delivered prices of domestic sheet and float glass and Romanian sheet glass is also of interest. Trends in prices of the two were similar over the 1972-76 period, although domestic prices climbed at a somewhat accelerated rate in comparison with Romanian prices in late 1975 and throughout 1976. In 1976 the average gap between domestic float and sheet glass net delivered prices combined and the Romanian sheet glass net delivered price was approximately 2.8 cents per square foot.

Price suppression and depression

The importance of price in sales promotion for clear sheet glass from Romania is a certainty, since an importer's witness testified before the Commission to that effect. For much of the period 1972-76 movements of the net delivered price of Romanian single-strength clear sheet glass paralleled those of net delivered prices of domestic single-strength clear sheet glass and float glass. The possibility exists that price suppression occured since Romanian prices were below those of domestic producers for most of that period. The historical pattern was disrupted beginning in the third quarter of 1975, when prices of single-strength domestic sheet and float glass exhibited an accelerated growth, probably because of an increase in demand with the resurgence in auto manufacturing and construction. The same effect was felt by Romanian glass importers, but evidently in a lagged fashion. This delayed response was probably due to the fact that Romanian sheet glass was not sold in the automotive market.

A scenario for the underlying causes of these price movements includes a threefold process. First, increased automobile production induce a rise

in float glass prices. Second, diminishing availability of domestic float glass for construction caused increased domestic prices for high grade sheet glass and further accelerated the demand for float glass. Finally, these upward pressures on domestic flat glass prices allowed importers of Romanian glass to raise their prices in response to a greater demand for sheet glass. The price of domestic float glass did not surpass the price of domestic sheet glass only because of decreased unit costs of float glass in 1976.

Factors other than price

Much attention was given to two injury-causing factors other than price in the Commission's hearing:

(a) Inroads made by float glass into traditional sheet glass markets, and
(b) The damaging effects of a domestic recession on the demand for flat glass through reduced production of automobile and housing.

There is no doubt that the emphasis on float glass production and marketing has had a detrimental effect on sheet glass sales. A statement to this effect was made by counsel for domestic producers.

The effects of the 1974-75 recession were also sizable, as indicated by Commission studies concerning the relationship between flat glass shipments and real gross national product. These studies show a correlation of 0.8123 between these two variables for the period 1972-76, which indicates a strong parallel relationship.

In contrast, no significant relationship was found between the unit values of Romanian sheet glass and domestic flat glass. The impact of the quantity of U.S. imports of Romanian glass on the domestic flat glass market was also insignificant in a statistical sense. For a summary of these and other correlation results mentioned above, see appendix A.

Profit-and-loss experience of domestic producers

The financial data presented in this section were obtained from questionnaire responses of six producers of sheet glass and/or clear float glass which accounted for virtually all of the domestic shipments of sheet glass and approximately 80 percent of the domestic shipments of float glass in 1976. All the respondents reported data for fiscal years ended December 31, except for Fourco Glass Co., whose fiscal year ended about June 30.

Overall establishment operations.--Overall net sales and intra-company transfers for the domestic producers of flat glass in 1972-76, as shown in table 26, rose from $456.1 million in 1972 to $518.9 million in 1973, declined to a low of $407.6 million in 1975, and then peaked in 1976 at $580.6 million, which represents an increase of approximately 42 percent over the figure for 1975.

Domestic producers reported a net operating profit of $64.6 million, 14.2 percent of net sales, in 1972. They reported a loss of $35.2 million, 8.6 percent of net sales, in 1975 and a profit of $45.6 million, 7.9 percent of net sales, in 1976. In 1974 and 1975, the only years in which overall losses were sustained, only one of the six respondents was able to show a profit.

Net profit or loss before income taxes and after other income and expense items followed the same trend. Profit declined from 1972 to 1973, losses were experienced in 1974 and 1975, and there was a substantial profit in 1976.

Table 26.--Flat glass: Profit-and-loss experience of 6 domestic producers of sheet glass and/or float glass on their overall establishment operations in which flat glass was produced, 1972-76

Year	Net sales	Net operating profit or (loss)	Net profit or (loss) before income taxes	Ratio of net operating profit or (loss) to net sales
	1,000 dollars	1,000 dollars	1,000 dollars	Percent
1972-----	456,145	64,555	63,683	14.2
1973-----	518,934	59,996	58,037	11.6
1974-----	472,293	(8,709)	(17,127)	(1.8)
1975-----	407,649	(35,184)	(38.993)	(8.6)
1976-----	580,615	45,640	43,350	7.9

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

Operations on sheet glass.--As shown in tables 27 and 28, net sales of clear sheet glass of the four domestic producers which account for all the domestic production of sheet glass decreased annually through 1975 and then increased in 1976. Net sales of sheet glass declined from *** million in 1972 to *** million in 1975 before rising to *** million in 1976. Net sales for the period January-June 1976, which covers 4 months of the 6-month period during which Treasury found LTFV sales, were approximately 69 percent greater than net sales for the corresponding period of 1975. Sales for the period January-June 1976 also were greater than sales for the preceding 6-month period, July-December 1975, and slightly less than sales for the following 6-month period, July-December 1976.

Table 27.--Flat glass: Profit-and-loss experience of 6 domestic producers on their operations on sheet glass and float glass, 1972-76, January-June 1975, January-June 1976, July-December 1975, and July-December 1976

Period and company	Operations on sheet glass				Operations on float glass			
	Net sales	Net operating profit or (loss)	Net profit or (loss) before income taxes	Ratio of net operating profit or (loss) to net sales	Net sales	Net operating profit or (loss)	Net profit or (loss) before income taxes	Ratio of net operating profit or (loss) to net sales
	1,000 dollars	1,000 dollars	1,000 dollars	Percent	1,000 dollars	1,000 dollars	1,000 dollars	Percent
1972								
ASG Industries, Inc.	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***
Total	***	***	***	***	86,907	8,951	7,899	10.3
1973								
ASG Industries, Inc.	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***
Total	***	***	***	***	131,522	18,945	13,295	14.4
1974								
ASG Industries, Inc.	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***
Total	***	***	***	***	153,127	(7,557)	(10,612)	(4.9)
1975								
ASG Industries, Inc.	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***
Total	***	***	***	***	180,911	(19,579)	(22,725)	(10.8)

Table 27.--Flat glass: Profit-and-loss experience of 6 domestic producers on their operations on sheet glass and float glass, 1972-76, January-June 1975, January-June 1976, July-December 1975, and July-December 1976--Continued

Period and company	Operations on sheet glass				Operations on float glass			
	Net sales	Net operating profit or (loss)	Net profit or (loss) before income taxes	Ratio of net operating profit or loss to net sales	Net sales	Net operating profit or (loss)	Net profit or (loss) before income taxes	Ratio of net operating profit or (loss) to net sales
	1,000 dollars	1,000 dollars	1,000 dollars	Percent	1,000 dollars	1,000 dollars	1,000 dollars	Percent
1976								
ASG Industries, Inc.	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***
Total	***	***	***	***	262,991	26,024	23,259	9.9
January-June 1975								
ASG Industries, Inc	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***
Total	***	***	***	***	72,319	(22,223)	(24,350)	(30.7)
January-June 1976								
ASG Industries, Inc.	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***
Total	***	***	***	***	125,878	9,388	7,114	7.5

Table 27.--Flat glass: Profit-and-loss experience of 6 domestic producers on their operations on sheet glass and float glass, 1972-76, January-June 1975, January-June 1976, July-December 1975, and July-December 1976--Continued

Period and company	Operations on sheet glass				Operations on float glass			
	Net sales	Net operating profit or (loss)	Net profit or (loss) before income taxes	Ratio of net operating profit or (loss) to net sales	Net sales	Net operating profit or (loss)	Net profit or (loss) before income taxes	Ratio of net operating profit or (loss) to net sales
	1,000 dollars	1,000 dollars	1,000 dollars	Percent	1,000 dollars	1,000 dollars	1,000 dollars	Percent
July-December 1975								
ASG Industries, Inc.	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***
Total	***	***	***	***	108,596	2,648	1,629	2.4
July-December 1976								
ASG Industries, Inc.	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***
Total	***	***	***	***	143,490	16,391	14,914	11.4

Table 28.--Flat glass: Profit-and-loss experience of 4 domestic producers of sheet glass on their sheet glass operations, 1972-76, January-June 1975, January-June 1976, July-December 1975, and July-December 1976

Period	Net sales	Net operating profit or (loss)	Net profit or (loss) before income taxes	Ratio of net operating profit or (loss) to net sales
1972				
1973				
1974				
1975				
1976				
Jan.-June--	*	*	* *	* * *
1975				
1976				
July-Dec.--				
1975				
1976				

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

***. Net operating profit delcined from *** million in 1972 to *** million in 1973. There was a net operating loss in 1975 of *** million and then an operating profit of *** in 1976. The ratios of net operating profit or loss to net sales followed a parallel trend.

During the period January-June 1976, which covers most of the dumping period, the four respondents reported a net operating loss of *** percent of net sales as compared with the *** percent operating loss sustained in the corresponding period of 1975. The industry loss sustained in January-June 1976 is entirely attributed *** as shown in table 27. During July-December 1975, which includes 2 months of the dumping period, domestic producers of sheet glass sustained a net

operating loss equivalent to *** percent of net sales, compared with the net operating profit of *** percent made in the corresponding period of 1976.

Net profit or loss before income taxes changed very little for the years 1971 and 1972, but began to change in 1974. Extraordinary losses were sustained in connection with the closing of some sheet glass facilities at ASG Industries, Inc., C-E Glass Division, Fourco Glass Co., and PPG Industries, Inc., beginning in 1974. These plant closings continued through 1976 and served to reduce net operating profit or increase net operating loss, as evidenced in tables 27 and 28.

Operations on float glass.--Net sales of float glass increased annually during 1972-76, with the largest yearly increase occurring in 1976. Net sales of clear float glass, as seen in tables 27 and 29 increased from $86.9 million in 1972 to $131.5 million in 1973, $153.1 million in 1974, $180.9 million in 1975, and $263.0 million in 1976. Net sales reported during the period January-June 1976 amounted to $125.9 million, about 74 percent more than sales for the corresponding period of 1975. Sales for the period July-December 1976 amounted to $143.5 million, approximately 32 percent more than sales for July-December 1975, which amounted to $108.6 million.

Table 29.--Flat glass: Profit-and-loss experience of 6 domestic producers of float glass on their float glass operations, 1972-76, January-June 1975, January-June 1976, July-December 1975, and July-December 1976

Period	Net sales	Net operating profit or (loss)	Net profit or (loss) before income taxes	Ratio of net operating profit or (loss) to net sales
	1,000 dollars	1,000 dollars	1,000 dollars	Percent
1972	86,907	8,951	7,899	10.3
1973	131,522	18,945	13,295	14.4
1974	153,127	(7,557)	(10,612)	(4.9)
1975	180,911	(19,579)	(22,725)	(10.8)
1976	262,991	26,024	23,259	9.9
Jan.-June				
1975	72,319	(22,223)	(24,350)	(30.7)
1976	125,878	9,388	7,114	7.5
July-Dec.				
1975	108,596	2,648	1,629	2.4
1976	143,490	16,391	14,914	11.4

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

While sales were steadily climbing, net operating loss and the ratio of net operating loss to net sales showed a decline in 1974 and 1975, followed by a significant profit in 1976. The operating losses experienced in 1974 and 1975 occured during a period in which the manufacturers of float glass were investing large sums of money in new machinery and equipment and new buildings. The startup problems that normally follow the completion of new production facilities probably contributed to some of the losses sustained in those years. There were also some plants that were in hot hold or cold hold 1/ at

1/ A plant in hot hold means the furnaces are kept hot but no production is run through them; a plant in cold hold means the furnaces are shut down completely.

various times during those 2 years because of the reduced demand for glass; this also added increased costs and lowered profits.

Table 29 indicates that during the period January-June 1976, net operating profit was 7.5 percent of net sales, compared with a 30.7-percent operating loss for the corresponding period of 1975. Net sales for July-December 1975, the period preceding most of the dumping period, showed operating profits at 2.4 percent of net sales, a figure considerably lower than the 11.4-percent operating profit ratio reported for the corresponding period of 1976. The trends in net profit or loss before income taxes followed the trend in operating profit or loss; the largest loss was sustained in 1975 and the largest profit was made in 1976.

Combined operations on flat glass.--Combined net sales of sheet and float glass increased from *** million in 1972 to *** million in 1974, dropped to *** million in 1975, and then increased sharply to *** million in 1976. Sales covering part of the dumping period (January-June 1976) amounted to *** million, 73 percent more than sales in the corresponding period of 1975. Net sales for the 6-month periods immediately preceding and following the dumping period amounted to *** million and *** million, respectively (table 30).

Net operating loss bottomed out in 1975 at *** million, equivalent to *** percent of net sales, but the producers recovered nicely in 1976 with an operating profit of *** million, or *** percent of net sales. During the period January-June 1976, domestic flat glass producers

showed a *** percent operating profit on net sales, compared with a *** percent operating loss for January-June 1975. During the period July-December 1975, the industry barely broke even, but it managed a *** percent profit on sales for the corresponding period of 1976.

Table 30.--Flat glass: Profit-and-loss experience of 6 domestic producers of sheet and/or float glass on their combined operations on sheet glass and float glass, 1972-76, January-June 1975, January-June 1976, July-December 1975, and July-December 1976

Period	Net sales	Net operating profit or (loss)	Net profit or (loss) before income taxes	Ratio of net operating profit or (loss) to net sales
	1,000 dollars	1,000 dollars	1,000 dollars	Percent
1972	***	***	***	***
1973	***	***	***	***
1974	***	***	***	***
1975	***	***	***	***
1976	***	***	***	***
Jan.-June--				
1975	***	***	***	***
1976	***	***	***	***
July-Dec.--				
1975	***	***	***	***
1976	***	***	***	***

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

A comparison of the operations of the sheet glass industry and float glass industry with the operation of the manufacturers of stone, clay, and glass products and all manufacturing corporations is provided in table 31.

Table 31.--Flat glass: Ratios of net operating profit or (loss) to net sales for domestic producers of sheet glass and float glass, producers of stone, clay, and glass, and all manufacturing corporations, 1972-75 and January-June 1976

(In percent)

Item	1972	1973	1974	1975	January-June 1976
Sheet glass producers	***	***	***	***	***
Float glass producers	10.3	14.4	(4.9)	(10.8)	7.5
Stone, clay, and glass producers	8.3	8.5	7.2	6.2	8.0
All manufacturing corporations	7.8	8.5	7.9	7.2	8.4

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and data supplied by the Federal Trade Commission Quarterly Financial Report for Manufacturing Corporations.

After 1972, the producers of sheet glass operated at an annual net operating profit level below the levels of float glass producers, stone, clay, and glass producers, and all manufacturing corporations; the producers of float glass maintained better operating levels in 1972 and 1973 than the other industries shown in table 31. In 1974 and 1975 both sheet and float glass manufacturers operated at a loss. In the period January-June 1976, float glass manufacturers almost reached the profit level of the last two industries shown in table 31. Sheet glass producers reported a net operating loss for the 6-month period, but that loss was largely due to the operations of one company.

Capital expenditures and research and development expenses.--As shown in tables 32 and 33, capital expenditures for sheet glass decreased annually through 1975 and then increased slightly in 1976.

Total capital expenditures for sheet glass ranged from $104,000 to $4.9 million in 1972-76. Capital expenditures in float glass facilities peaked in 1973 at $132.1 million and reached their lowest point in 1976, at $9.0 million.

Table 32.--Flat glass: Total capital expenditures of U.S. producers for facilities primarily used in the production of sheet and/or float glass, 1972-76

(In thousands of dollars)

Year	Sheet glass	Float glass
1972	4,932	80,661
1973	4,818	132,057
1974	1,168	93,356
1975	104	22,514
1976	180	8,988

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

Research and development expenses for sheet glass declined from $2.3 million in 1972 to $809,000 in 1975 and then increased to $1.4 million in 1976. The increase is almost entirely attributed to PPG Industries, Inc. (table 33). Research and development expenditures for float glass increased sharply in 1973 to $7.1 million from $3.7 million in 1972, and then fluctuated between $6 million and $7 million during the next 3 years.

Valuation of assets and return on investment. 1/--The total cost of assets employed in the production of sheet glass showed an overall decrease during 1972-76, from $128.9 million in 1972 to $97.0 million

1/ Investment is defined as the assets of the production facilities manufacturing sheet or float glass, not including administrative facilities, warehousing, and other nonmanufacturing or nonassembly facilities.

Table 26.--Clear flat glass: Capital expenditures and research and development expenses of 6 domestic producers for facilities primarily used in the production of sheet glass and/or float glass, by types of expenditure, 1972-76

(In thousands of dollars)

Year and company	Sheet glass						Float glass					
	Land, land improvements	Building, leasehold improvements	Machinery, equipment, and fixtures: New	Machinery, equipment, and fixtures: Used	Other	Research and development expenses	Land, land improvements	Building, leasehold improvements	Machinery, equipment, and fixtures: New	Machinery, equipment, and fixtures: Used	Other	Research and development expenses
1972												
ASG Industries, Inc	***	***	***	***	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***	***	***	***	***
Total	150	580	4,186	1	15	2,338	3,984	20,024	56,246	-	407	3,661
1973												
ASG Industries, Inc	***	***	***	***	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***	***	***	***	***
Total	15	306	4,467	-	30	1,914	3,992	28,776	99,171	-	118	7,147
1974												
ASG Industries, Inc	***	***	***	***	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***	***	***	***	***
Total	47	82	37	-	2	1,711	2,253	18,719	71,300	-	1,084	7,049
1975												
ASG Industries, Inc	***	***	***	***	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***	***	***	***	***
Total	2	6	96	-	-	809	186	1,884	20,303	-	141	5,847
1976												
ASG Industries, Inc	***	***	***	***	***	***	***	***	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	***	***	***	***	***	***	***	***	***	***	***	***
Fourco Glass Co	***	***	***	***	***	***	***	***	***	***	***	***
Guardian Industries Corp	***	***	***	***	***	***	***	***	***	***	***	***
Libbey-Owens-Ford Co	***	***	***	***	***	***	***	***	***	***	***	***
PPG Industries, Inc	***	***	***	***	***	***	***	***	***	***	***	***
Total	5	22	137	3	13	1,365	100	92	8,759	1	36	6,152

in 1976. The book value (total cost of assets less accumulated depreciation) also showed an overall decline (table 34). The total cost of assets employed in the production of float glass, however, increased annually from $313.3 million in 1972 to $567.2 million in 1976. The book value of these assets rose yearly between 1972 and 1974 and then began to fall in 1975, when the annual investment in production facilities began to decline.

The return on investment, i.e., ratio of net profit or loss before taxes to investment in production facilities of sheet glass, as shown in table 35, was at its highest point in 1972 at 9.2 percent of actual cost, which would probably be considered at the least a reasonable return. However, the ratio began to fall in 1973 and continued to fall until 1976, when it reached approximately the 1973 level. The return on the book value of those assets employed in the production of sheet glass followed the same general trend. A reasonable rate of return on the book value of assets would vary from company to company depending on the methods of depreciation used by the individual companies and the age of the assets in their sheet glass plants.

Table 34.--Flat glass: Cost and book value of assets employed in the production of sheet glass and float glass, by companies, 1972-76

(In thousands of dollars)

Year and company	Sheet glass		Sheet glass	
	Cost	Book value	Cost	Book value
1972				
ASG Industries, Inc.	***	***	1/	1/
C-E Glass Division, Combustion Engineering, Inc	1/	1/	***	***
Guardian Industries Corp	1/	1/	***	***
Libbey-Owens-Ford Co	***	***	***	***
PPG Industries, Inc	***	***	***	***
Total	128,941	45,600	313,345	192,269
1973				
ASG Industries, Inc	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	1/	1/	***	***
Guardian Industries Corp	1/	1/	***	***
Libbey-Owens-Ford Co	***	***	***	***
PPG Industries, Inc	***	***	***	***
Total	130,740	44,046	465,046	327,070
1974				
ASG Industries, Inc	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	1/	1/	***	***
Guardian Industries Corp	1/	1/	***	***
Libbey-Owens-Ford Co	***	***	***	***
PPG Industries, Inc	***	***	***	***
Total	126,609	37,488	526,851	373,618
1975				
ASG Industries, Inc	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	1/	1/	***	***
Guardian Industries Corp	1/	1/	***	***
Libbey-Owens-Ford Co	***	***	***	***
PPG Industries, Inc	***	***	***	***
Total	103,765	29,051	559,027	357,878
1976				
ASG Industries, Inc	***	***	***	***
C-E Glass Division, Combustion Engineering, Inc	1/	1/	***	***
Guardian Industries Corp	1/	1/	***	***
Libbey-Owens-Ford Co	***	***	***	***
PPG Industries, Inc	***	***	***	***
Total	96,980	24,923	567,209	328,767

1/ Not available.

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

Table 35.--Flat glass: Ratios of net operating profit or (loss) 1/ to investment in production facilities 2/ of 6 U.S. producers with respect to their operations on sheet glass and float glass, 1972-76

(In percent)

	Sheet glass		Float glass	
	Actual cost	Net book value	Actual cost	Net book value
1972	9.2	26.1	2.5	4.1
1973	4.2	12.4	2.9	4.1
1974	(13.1)	(44.2)	(2.0)	(2.8)
1975	(8.9)	(32.0)	(4.1)	(6.3)
1976	4.6	17.8	4.4	7.7

1/ The net operating profit or loss figures used to calculate the ratios do not include the operations of Fourco Glass Co., since it did not supply asset valuation data.

2/ Does not include assets for administrative facilities, warehousing, or any other nonmanufacturing or nonassembly facilities.

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

The return on investment for porduction facilities of float glass maintained a relatively low ratios for both actual cost and book value of assets, as shown in table 35. It is doubtful that the low return on investment in production facilities would be considered unsatisfactory by the domestic producers; since there was such a large infusion of funds invested in float glass facilities over the 1972-75 period, it will probably be several years after the plants begin producing at peak efficiency before they will experience a more favorable retrun. The return on investment based on actual cost of assets increased from 2.5 percent in 1972 to 4.4 percent in 1976. The return on investment based on book value increased from 4.1 percent in 1972 to 7.7 percent in 1976 .

APPENDIX A

INTERRELATIONSHIPS AMONG VARIABLES IN THE FLAT GLASS INDUSTRY

The correlation coefficient is a standard statistical measurement of the magnitude and direction of related movements of two variables, such as real gross national product (GNP) and shipments of flat glass. The sign of the coefficient indicates the direction of the related movement (a positive sign would mean movement in the same direction; a negative sign would indicate movement in the opposite direction). Correlations near plus or minus 1 indicate strongly related movements, while a coefficient of zero is indicative of no statistical relationship.

Correlation coefficients for variables in the flat glass industry were computed primarily in order to seek out the connection between flat glass production and shipments and more aggregated economic variables. It was found that real GNP was, in general, the best indicator of activity in the domestic flat glass industry. Flat glass shipments were positively correlated with real GNP (RGNPD-FGS 0.8123) (see list of variables on the following page), as were sheet glass shipments alone (RGNPD-SGS 0.8108). Some strong correlations were elicited in the category fixed investment on residential and nonresidential structures as well (0.7121 with the value of flat glass shipments is one example). Unit value data showed no strong negative correlations with shipments or production, although it generally elicited a negative sign (see table on page A-78).

List of Variables

(PIFG) Wholesale price index, all flat glass, 1967=100.

(OFGS) Shipments of flat glass other than sheet glass, in millions of square feet.

(FGS) Shipments of flat glass, in millions of square feet.

(PCA) Personal consumption expenditures on automobiles, in billions of dollars.

(FIS) Fixed investment expenditures on residential and non-residential structures, in billions of dollars.

(NC) New construction, in billion of dollars.

(SCTB) Factory sales of passenger cars, trucks, and buses, in thousands.

(FGUVS) Unit value of flat glass shipments, in cents per square foot.

(FGVS) Value of flat glass shipments, in millions of dollars.

(SGP) Sheet glass production, in millions of square feet.

(SGS) Sheet glass shipments, in millions of square feet.

(OFGVS) Value of shipments of flat glass other than sheet glass, in millions of dollars.

(OFGP) Production of flat glass other than sheet glass, in millions of square feet.

(OFGS) Shipments of flat glass other than sheet glass, in millions of square feet.

(APFI) Personal consumption expenditures on autos plus fixed investment in residential and non-residential structures, in billions of dollars.

(RGNPD) Real gross national product, in billions of 1958 dollars.

(SGVS) Value of sheet glass shipments, in millions of dollars.

(CRQI) Quantity of imported sheet glass from Romania, in thousands of pounds.

(CRUV) Unit value of sheet glass from Romania, in cents per pound.

Correlation analysis: Correlation coefficients for selected variables in the flat glass market

PIFG	
PIFG-OFGS	-0.4782
FGS	
FGS-PCA	.4155
FGS-FIS	.6323
FGS-NC	.4871
FGS-SCTB	.5287
FGS-FGUVS	-.3271
FIS	
FIS-FGVS	.7121
FIS-FGS	.6323
FIS-SGP	.5196
FIS-SGS	.6721
FIS-OFGVS	.6700
NC	
NC-FGVS	.5114
NC-FGS	.4871
NC-OFGP	.4810
NC-OFGS	.5164
NC-OFGVS	.6141
SCTB	
SCTB-FGVS	0.4501
SCTB-FGS	.5287
SCTB-OFGS	.6813
APFI	
APFI-FGVS	.6161
APFI-FGS	.5818
APFI-OFGVS	.6002
RGNPD	
RGNPD-FGVS	.8646
RGNPD-FGS	.8123
RGNPD-SGP	.6687
RGNPD-SGS	.8108
RGNPD-SGVS	.8144
RGNPD-OFGP	.6069
RGNPD-OFGVS	.7904
CRQI	
CRQI-NC	.3072
CRQI-CRUV	-.0568

One further reason for calculating these correlations was to assess the impact of Romanian sheet glass on the domestic flat glass industry. The resulting measurements indicated no strong relationships, negative or positive. The only meaningful economic correlation was a relatively low coefficient (0.3072) found between imports of sheet glass from Romania (in millions of pounds) and new construction in the domestic market. Although sheet glass imports from Romania correlated negatively with unit values of sheet glass from Romania, the correlation coefficient was of negligible magnitude (-0.0568).

APPENDIX B

RESPONSES OF IMPORTS TO CHANGES IN THE PRICE OF IMPORTED SHEET GLASS AND DOMESTIC FLAT GLASS AND TO CHANGES IN MORE AGGREGATED ECONOMIC ACTIVITY VARIABLES

The demand for an imported product, such as sheet glass, would be expected to vary according to its price, the price of substitute products, and aggregate economic demand in the U.S. market. Elasticities may be calculated by standard regression analysis to measure the responses of imported sheet glass to all the other variables mentioned above. Essentially, an elasticity is the percentage change in one economic variable that results from a 1-percent change in another economic variable.

For sheet glass from all foreign sources, elasticities were calculated in a log-linear regression using two equations, one based on standard unit value data and another based on relative unit values. The results show a statistically significant sensitivity of imported sheet glass to the corresponding unit value of imports. In particular, the elasticity of -3.15 in equation I indicates that a 1-percent rise in import unit values has historically coincided with a decrease of approximately 3 percent in imports of foreign sheet glass (table on page A-82). In equation II, a 1-percent increase in the import unit value relative to the unit value of domestic flat glass elicited a decline of almost 5 percent in sheet glass imports.

Several caveats should be mentioned at this point. In all equations--

(1) The standard ceteris paribus conditions are assumed;
(2) Supply is assumed to be infinitely elastic at the going price; and
(3) The relationships recorded are observable specifically for the first quarter of 1972, through the third quarter of 1976.

Further elasticities were calculated in both equation I and equation II. In equation I a statistically significant elasticity was calculated for the unit value of domestic flat glass other than sheet glass. This measure shows that, for the period involved, a 1-percent increase in "other domestic flat glass" unit values was coincident with a 2-percent increase in imports.

The "activity" variable employed in both equations was a combination of personal consumption expenditures on automobiles and fixed investment expenditures on residential and nonresidential structures. Both measures are exceedingly important in the demand for flat glass, although automobile expenditures affect imports of sheet glass primarily through displacement of "other domestic flat glass."

The derived demand variable (ACT) showed elasticities of 1.4 and 1.3 in equations I and II, respectively. These measurements represent the percentage change in imports of sheet glass given a 1-percent change in personal consumption of autos and fixed investments in structures, combined. The positive signs of the income elasticities indicate that imports move in the same direction as income, as expected.

Further equations were run for imports from Romania only, adding the unit value of all other imports as an extra explanatory variable. The irregular fluctuations in sheet glass imports from Romania could not be explained statistically using the standard

unit value and income variables, possibly owing to Romania's export status as a nonmarket (non-price-oriented) economy. The standard import elasticity equations, with their tests of statistical significance, may be examined in the following table.

Sheet glass: Measures of import elasticities and their statistical tests of significance, January 1972-October 1976

Equations	Variables, elasticities, and t-statistics 1/					Statistical tests of equations		
	Pm	Pm/Pd	Psg	Pofg	ACT	R^2	DW	SEE
Equation I----	-3.15		.64	2.19	1.41	.89	1.50	.18
	(3.36)		(.58)	(2.05)	(2.38)			
Equation II----		-4.94			1.30	.82	1.71	.22
		(8.21)			(2.08)			

1/ Log-linear equations were run for both elasticity analyses. For equation I, $\log Qm = a + \alpha \log Pm + \beta \log Psg + \gamma \log Pofg + \delta \log ACT$; for equation II, $\log Qm = a + \alpha \log (Pm/Pd) + \beta \log ACT$. Figures in parentheses are t-statistics.

Source: Calculated by the United States International Trade Commission.

Note.--Qm = quantity of imported sheet glass; Pm = unit value of sheet glass imports; Pm/Pd = unit value of sheet glass imports divided by unit value of all domestic flat glass; Psg = unit value of domestic sheet glass; Pofg = unit value of domestic flat glass other than sheet glass; ACT = personal consumption expenditure on automobiles plus fixed investment in residential and nonresidential structures; R^2 = coefficient of determination; DW = Durbin-Watson statistic; SEE = standard error of estimate.

The Durbin-Watson statistic(DW) of 1.50 in equation I indicates that the test for serial correlation of residuals is in conclusive at the 5 percent level. The equation II, the DW of 1.71 with two independent variables is sufficient to dispel problems of autocorrelation at the 5 percent level. Therefore, in the basic of the Durbin-Watson statistic above, the second specification is preferable.

With regard to multicollinearity, no standard error of a significant explanatory variable is so large that correlation between in dependent variables looms consequential in either equation I or equation II.

APPENDIX C

SUPPLEMENTARY DATA

Table A.--Flat glass: U.S. production, 1972-76

(In millions of square feet)

Item	1972	1973	1974	1975	1976
Sheet glass, total	1,265	1,185	994	474	592
Window:					
Single-strength	717	708	624	305	391
Double-strength	319	333	262	116	138
Heavy sheet	202	125	84	40	41
Thin and colored	27	19	24	13	22
Plate, float, and rolled, and wire glass, total	1,522	1,890	1,824	2,009	2,675
Plate and float not over 1/8 inch in thickness	547	705	761	1,067	1,468
Plate and float over 1/8 inch but not over 1/4 inch in thickness	876	1,081	964	855	1,109
Plate and float over 1/4 inch in thickness and rolled and wire glass	99	104	99	87	98

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

Table 8.--Flat glass: U.S. producers' shipments, 1972-76

Item	1972	1973	1974	1975	1976
	Quantity (million square feet)				
Sheet glass, total	1,198	1,127	902	453	551
Window:					
Single-strength	715	700	587	314	394
Double-strength	292	299	226	95	112
Heavy sheet	167	108	67	30	27
Thin and colored	24	20	22	14	18
Plate, float, rolled, and wire glass, Total	1,191	1,445	1,396	1,553	2,053
Plate and float not over 1/8 inch in thickness	445	574	610	894	1,155
Plate and float over 1/8 inch but not over 1/4 inch in thickness	660	781	706	581	808
Plate and float over 1/4 inch in thickness and rolled and wire glass	86	90	80	78	90
	Value (million dollars)				
Sheet glass, total	157.2	152.2	132.5	76.2	101.7
Window:					
Single-strength	90.3	92.4	84.8	51.2	70.6
Double-strength	39.5	41.0	33.5	16.5	21.0
Heavy sheet	22.4	14.0	8.8	4.5	4.7
Thin and colored	5.0	4.8	5.4	4.0	5.4
Plate, float, rolled, and wire glass, total	387.7	445.4	410.8	391.8	543.0
Plate and float not over 1/8 inch in thickness	122.6	144.1	137.1	196.4	234.9
Plate and float over 1/8 inch but not over 1/4 inch in thickness	224.7	261.3	233.2	185.0	263.4
Plate and float over 1/4 inch in thickness and rolled and wire glass	40.4	40.0	40.5	37.4	44.7
	Unit value (cents per square foot)				
Sheet glass, total	13.1	13.5	14.7	16.8	18.5
Window:					
Single-strength	12.6	13.2	14.4	16.3	17.9
Double-strength	13.5	13.7	14.8	17.4	18.8
Heavy sheet	13.4	13.0	13.1	15.0	17.4
Thin and colored	20.8	24.0	24.5	28.6	30.0
Plate, float, rolled, and wire glass, total	32.5	30.8	29.4	25.2	26.4
Plate and float not over 1/8 inch in thickness	27.6	25.1	22.5	22.0	20.3
Plate and float over 1/8 inch but not over 1/4 inch in thickness	34.0	33.5	33.0	31.8	32.6
Plate and float over 1/4 inch in thickness and rolled and wire glass	47.0	44.4	50.6	47.9	49.7

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

APPENDIX D

DEPARTMENT OF STATE CORRESPONDENCE

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STR:HLAWRENCE (INFO)
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LIMITED OFFICIAL USE STATE 017872

E.O. 11652:N/A

TAGS: ETRD, RO

SUBJECT: USITC ANTIDUMPING INVESTIGATION ON CLEAR SHEET GLASS FROM ROMANIA

REF: A) STATE 6317 B) STATE 9699

BEGIN UNCLASSIFIED:

1. AS REPORTED REFTELS THE ANTIDUMPING INVESTIGATION OF CLEAR SHEET GLASS FROM ROMANIA HAS BEEN REFERRED TO THE UNITED STATES INTERNATIONAL TRADE COMMISSION (USITC) FOR AN INVESTIGATION TO DETERMINE WHETHER AN INDUSTRY IN THE U.S. IS BEING OR IS LIKELY TO BE INJURED, OR IS PREVENTED FROM BEING ESTABLISHED, BY REASON OF THE IMPORTATION OF CLEAR SHEET GLASS SOLD AT LESS THAN FAIR VALUE INTO THE U.S. A PUBLIC HEARING IN THE CASE WILL BE HELD IN MARCH (DATE WILL BE SENT SEPTEL).

2. IN CONNECTION WITH THIS INVESTIGATION, THE USITC IS SEEKING ANSWERS TO THE FOLLOWING QUESTIONS:

A) HAVE THE ROMANIAN PRODUCERS OF CLEAR SHEET GLASS INCREASED THEIR PRODUCTION CAPACITY SINCE 1971, AND IF SO, BY HOW MUCH?

B) DO THE ROMANIAN PRODUCERS OF CLEAR SHEET GLASS HAVE PLANS TO INCREASE THEIR PRODUCTION CAPACITY IN THE NEXT FIVE YEARS, AND IF SO, BY HOW MUCH?

C) ARE THE ROMANIAN PRODUCERS OF CLEAR SHEET GLASS ACTIVELY SEEKING MARKETS OR TRYING TO ESTABLISH MARKETING CHANNELS IN THE UNITED STATES, AND IF SO, HOW ARE THEY GOING ABOUT ESTABLISHING THESE CHANNELS?

D) HAVE THE ROMANIAN PRODUCERS OF CLEAR SHEET GLASS HAD CONTACT WITH AMERICAN BUSINESS INTERESTS FOR INVESTMENT CAPITAL OR OTHER ASSISTANCE WITHIN THE PAST YEAR OR SO, OR ARE THEY CURRENTLY ENGAGED IN SUCH CONTACTS?

3. EMBASSY IS REQUESTED TO PROVIDE WHAT INFORMATION MAY BE AVAILABLE OR SUPPLIED BY THE ROMANIAN GOVERNMENT IN RESPONSE TO THESE QUESTIONS. IN VIEW OF DEADLINES IN CASE, RESPONSE BY FEBRUARY 18, 1977, WOULD BE APPRECIATED. ROMANIA MAY, OF COURSE, SUBMIT ADDITIONAL INFORMATION LATER OR AT THE PUBLIC HEARINGS IN MARCH.

4. WASHINGTON AGENCIES PRIMARILY COMMERCE WILL RAISE

STATE 017872

THESE UESTIONS WITH FODOR IN NEW YORK AS WELL. END UNCLAS IFIED.

5. BE IN LIMITED OFFICIAL USE:

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UNCLAS BUCHAREST 0671

E.O. 11652: N/A
TAGS: ETRD, RO
SUBJ: USITC ANTIDUMPING INVESTIGATION ON CLEAR SHEET GLASS FROM ROMANIA

REF: STATE 017872

1. EMBOFFS CALLED ON DIRECTOR OF ROMSIT TRAIAN TROCAN (FTO RESPONSIBLE FOR EXPORTING ROMANIAN CLEAR SHEET GLASS) ON FEBRUARY 1 IN ATTEMPT OBTAIN INFO REQUESTED REFTEL. TROCAN NOTED QUESTIONS WITH INTEREST AND PROMISED HAVE RESPONSE FOR US ON FEBRUARY 15.

2. WE ALSO PLAN RAISE SAME QUESTIONS WITH APPROPRIATE OFFICIALS IN MINISTRY OF LIGHT INDUSTRY AND MINISTRY OF FOREIGN TRADE.
BARNES

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Department of State TELEGRAM

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E.O. 11652: N/A
TAGS: ETRD, RO
SUBJ: USITC ANTIDUMPING INVESTIGATION ON CLEAR SHEET GLASS FROM ROMANIA
REF: (A) STATE 17872, (B) BUCHAREST 0671

D

FORM

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APPROVED BY EB/OT/STA: JSPIRO
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UNCLAS STATE 056685

E.O. 11652: N/A

TAGS: ETRD

SUBJECT: IMPACT OF RECENT EARTHQUAKE ON ROMANIAN SHEET GLASS CAPACITY

REF: STATE 6317, STATE 17872, STATE 53179

1. IN CONNECTION WITH USITC ANTI-DUMPING INVESTIGATION OF CLEAR SHEET GLASS FROM ROMANIA, USITC REQUESTS EMBASSY BUCHAREST TO PROVICE ANSWERS TO THE FOLLOWING QUESTIONS BY MARCH 18:

A. HOW MANY PLANTS OR PARTS OF PLANTS PRODUCING CLEAR SHEET GLASS WERE DESTROYED IN RECENT EARTHQUAKE? WHAT PERCENT OF 1976 CAPACITY DOES THIS REPRESENT?

B. ESTIMATED TIME IT WILL TAKE TO REBUILD TO PRE-EARTHQUAKE LEVEL ANY CLEAR SHEET GLASS CAPACITY DESTROYED.

C. GENERAL FORECAST OF ROMANIAN ABILITY TO EXPORT CLEAR SHEET GLASS TO U.S. MARKET OVER NEXT FIVE YEARS.

2. DEPARTMENT UNDERSTANDS THAT NOT ALL OF THIS INFORMATION MAY BE AVAILABLE WITHIN SHORT TIMEFRAME. HOWEVER,

RUMANIANS SHOULD UNDERSTAND THAT WHATEVER INFORMATION IS SUPPLIED MAY BE HELPFUL.

3. DEPARTMENT WILL ALSO DISCUSS MATTER WITH RUMANIAN EMBASSY IN WASHINGTON.
VANCE

Department of State TELEGRAM

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INFO OCT-01 EUR-12 ISO-00 FEA-01 AGRE-00 CEA-01 CIAE-00
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E.O. 11652: N/A
TAGS: ETRD, RO
SUBJECT: IMPACT OF RECENT EARTHQUAKE ON ROMANIAN SHEET GLASS CAPACITY

REF: STATE 56685

1. IN RESPONSE TO QUESTIONS RAISED REFTEL, ROMSIT DIRECTOR GENERAL TROCAN PROVIDED FOLLOWING INFO:

A. PLANTS COMPLETELY OR PARTIALLY DESTROYED:
TWO PLANTS HIT: ONE IN PLOIESTI COMPLETELY DESTROYED, OTHER IN BUZAU PARTIALLY DAMAGED. PRODUCTION LOSS REPRESENTS 25 PERCENT OF 1976 CAPACITY.

B. TIME NEEDED TO REBUILD TO PRE-EARTHQUAKE LEVEL: ESTIMATED 12 TO 16 MONTHS.

C. GENERAL FORECAST OF ROMANIAN ABILITY TO EXPORT SHEET GLASS TO U. S. MARKET: NO ESTIMATE PROVIDED. TROCAN DID SAY THAT ROMANIA HOPES CONTINUE EXPORT TO U.S. HE ADDED THAT TO PAY FOR IMPORTS ROMANIA MUST EXPORT. IN RESPONSE TO QUESTION CONCERNING DIVERSION OF EXPORTS TO

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OTHER MARKETS INCLUDING LEBANON, TROCAN OFFERED NO COMMENT. FYI: BRITISH EMBASSY COMMERCIAL OFFICER TOLD COMATT THAT BRITAIN CURRENTLY CONDUCTING ANTI-DUMPING INVESTIGATION ON GLASS (FLAT GLASS USED IN HORTICULTURE) IMPORTS FROM SEVERAL EAST EUROPEAN COUNTRIES INCLUDING ROMANIA . END FYI.

2. COMMENT: EMBASSY NOT PRESENTLY ABLE TO CORROBORATE ABOVE INFO. OUR GUESSTIMATE, PRIOR TO OPPORTUNITY TO VISIT PLOIESTI, IS THAT ROMSIT MAY HAVE OVERSTATED PRODUCTION LOSS AND UNDERESTIMATED TIME PERIOD FOR REACHING PRE-EARTHQUAKE PRODUCTION LEVEL.
BARNES

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APPENDIX E

FEDERAL REGISTER NOTICES

FEDERAL REGISTER, VOL. 42, NO. 11—MONDAY, JANUARY 17, 1977

CLEAR SHEET GLASS FROM ROMANIA

Antidumping; Determination of Sales at Less Than Fair Value

Information was received in proper form on March 9, 1976, from counsel acting on behalf of ASG Industries, Inc., Libby-Owens-Ford Company, and PPG Industries, Inc., alleging that clear sheet glass from Romania was being sold at less than fair value within the meaning of the Antidumping Act, 1921, as amended (19 U.S.C. 160 *et seq.*) (referred to in this notice as "the Act"). On the basis of this information and subsequent preliminary investigation by the Customs Service, an "Antidumping Proceeding Notice" was published in the FEDERAL REGISTER of April 8, 1976 (41 FR 14909).

The Secretary determined that it was inadvisable to take tentative action within the normal 6-month investigatory period. The investigatory period in this case was therefore extended to 9 months and a "Notice of Extension of Investigatory Period" was published in the FEDERAL REGISTER of August 30, 1976 (41 FR 36520).

A "Withholding of Appraisement Notice" issued by the Secretary of the Treasury is being published concurrently with this notice.

DETERMINATION OF SALES AT LESS THAN FAIR VALUE

I hereby determine that, for the reasons stated below, clear sheet glass from Romania is being, or is likely to be, sold at less than fair value within the meaning of section 201(a) of the Act (19 U.S.C. 160(a)).

STATEMENT OF REASONS ON WHICH THIS FINAL DETERMINATION IS BASED

The reasons and bases for the above final determination are as follows:

a. *Scope of the Investigation.* All imports of the subject merchandise from Romania were exported by ROMSIT. Therefore, the investigation was limited to this exporter.

b. *Basis of Comparison.* For the purposes of considering whether the merchandise in question is being, or is likely to be, sold at less than fair value within the meaning of the Act, the proper basis of comparison is between purchase price and the constructed value of similar merchandise. Purchase price, as defined in section 203 of the Act (19 U.S.C. 162), was used since all export sales were made to non-related customers in the United States. Inasmuch as the merchandise under consideration was produced in a state-controlled-economy country, constructed value was based on the price at which similar merchandise was sold for home consumption in a non-state-controlled-economy country. The country chosen for this purpose was Austria, since similar merchandise was sold in Austria in sufficient quantities to provide a basis of comparison for fair value purposes, as provided in § 153.7, Customs Regulations (19 CFR 153.7).

c. *Purchase Price.* For the purposes of this final determination of sales at less than fair value, adjustments have been made on the following bases. In accordance with § 153.31(b), Customs Regulations (19 CFR 153.31(b)), pricing information was obtained concerning imports of clear sheet glass from Romania during the period November 1, 1975, through April 30, 1976.

In the import transactions, all of the merchandise was purchased, or agreed to be purchased, prior to the time of exportation by the persons by whom or for whose account it was imported, within the meaning of the Act. The purchase price has been calculated on the basis of the f.o.b. Constanza, Romania, price to unrelated U.S. purchasers. Deductions have been made for transportation, loading and shipping costs.

d. *Constructed Value.* For the purposes of this final determination of sales at less than fair value, adjustments have been made on the following bases. The Austrian home market price was calculated on the basis of the f.o.b. customer's warehouse, packed, price. Adjustments were made for shipping costs and discounts, and for differences in packing costs, credit terms, and merchandise. Adjustment for discounts relates to place of delivery discounts, cash discounts, and discounts in connection with high volume purchases. Each of the foregoing costs was directly related to the sales under consideration.

Adjustment for further volume discounts was requested by counsel for respondents. This adjustment has been denied, on the ground that no further volume discount was actually granted in the Austrian home market sales under consideration.

Adjustment for differences in the quality of the merchandise was requested by counsel for respondents. This adjustment has been granted, on the ground that there is sufficient evidence to indicate the existence of differences in quality between the Austrian and Romanian merchandise, respectively, which result in a difference in the market value of that merchandise. Quantifying these differences has been difficult to document when compared to the standard of evidence of difference in market value generally required in antidumping cases. Evidentiary difficulties existing in state-controlled-economy cases, where to a large extent the necessary documentation can only be obtained through the voluntary cooperation of disinterested third parties, merit the granting of the aforesaid adjustment based upon evidence consisting of objective analyses that quality differences exist and estimates of the extent of market value differences between Austrian and Romanian merchandise. It has been concluded that the granting of the aforesaid adjustment in these circumstances is necessary to avoid an unreasonable and inequitable result in this case.

Counsel for respondents has raised the issue whether Romanian home market sales or sales to third countries should be utilized for fair value comparison purposes. It having been established previously that the economy of Romania is state-controlled within the meaning of section 205(c) of the Act (19 U.S.C. 164(c)), and absent evidence indicating the contrary, it has been determined that in this case fair value comparisons are appropriately made based on constructed value as reflected by the prices at which similar merchandise of a non-state-controlled-economy country is sold for consumption in the home market of that country, as provided by section 205(c)(1) of the Act (19 U.S.C. 164(c)(1)).

e. *Result of Fair Value Comparisons.* Using the above criteria, purchase price was found to be lower than the constructed value of similar merchandise. Comparisons were made on approximately 100 percent of sales of the subject merchandise imported during the investigative period. Margins were found on 100 percent of the sales compared with a weighted average margin of 48 percent.

The Secretary has provided an opportunity to known interested persons to present written and oral views pursuant to § 153.40, Customs Regulations (19 CFR 153.40).

The United States International Trade Commission is being advised of this determination.

This determination is being published pursuant to section 201(c) of the Act (19 U.S.C. 160(c)).

JERRY THOMAS,

Under Secretary of the Treasury.

JANUARY 10, 1977.

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Office of the Secretary

CLEAR SHEET GLASS FROM ROMANIA

Antidumping; Withholding of Appraisement Notice

Information was received in proper form on March 9, 1976, from counsel acting on behalf of A.S.G. Industries, Inc., Libby-Owens-Ford Company, and P.P.G. Industries, Inc., alleging that clear sheet glass from Romania was being sold at less than fair value within the meaning of the Antidumping Act, 1921, as amended (19 U.S.C. 160 *et seq.*) (referred to in this notice as "the Act"). On the basis of this information and subsequent preliminary investigation by the Customs Service, an "Antidumping Proceeding Notice" was published in the FEDERAL REGISTER of April 8, 1976 (41 FR 14909). The "Antidumping Proceeding Notice" indicated that there was evidence on record concerning injury or likelihood of injury or prevention of establishment of an industry in the United States.

The Secretary determined that it was inadvisable to take tentative action within the normal 6-month investigatory period. Accordingly, the investigatory period in this case was extended to no more than 9 months from the date of publication of the "Antidumping Proceeding Notice", and a "Notice of Extension of Investigatory Period" to that effect was published in the FEDERAL REGISTER of August 30, 1976 (41 FR 36520).

Pursuant to section 201(b) of the Act (19 U.S.C. 160(b)), notice is hereby given that there are reasonable grounds to believe or suspect that the purchase price (section 203 of the Act; 19 U.S.C. 162) of Romanian clear sheet glass is less, or is likely to be less, than the price at which similar merchandise of a non-state-controlled-economy country, Austria, was sold in the home market of that country (section 205(c)(1) of the Act; 19 U.S.C. 164(c)(1)).

Customs officers are being directed to withhold appraisement of clear sheet glass from Romania in accordance with § 153.48, Customs Regulations (19 CFR 153.48).

No request for a 6-month withholding of appraisement has been made in this case. Therefore, a "Notice of Determination of Sales at Less Than Fair Value" by the Secretary of the Treasury is being published concurrently with this notice.

The Secretary has provided an opportunity to known interested persons to present written and oral views pursuant to § 153.40, Customs Regulations (19 CFR 153.40).

This notice, which is published pursuant to section 153.35(a), Customs Regulations (19 CFR 153.35(a)), shall become effective upon publication in the FEDERAL REGISTER.

It shall cease to be effective on April 14, 1977 unless previously revoked.

JERRY THOMAS,
Under Secretary of the Treasury.

JANUARY 10, 1977.

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WASHINGTON, D.C. 20436

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