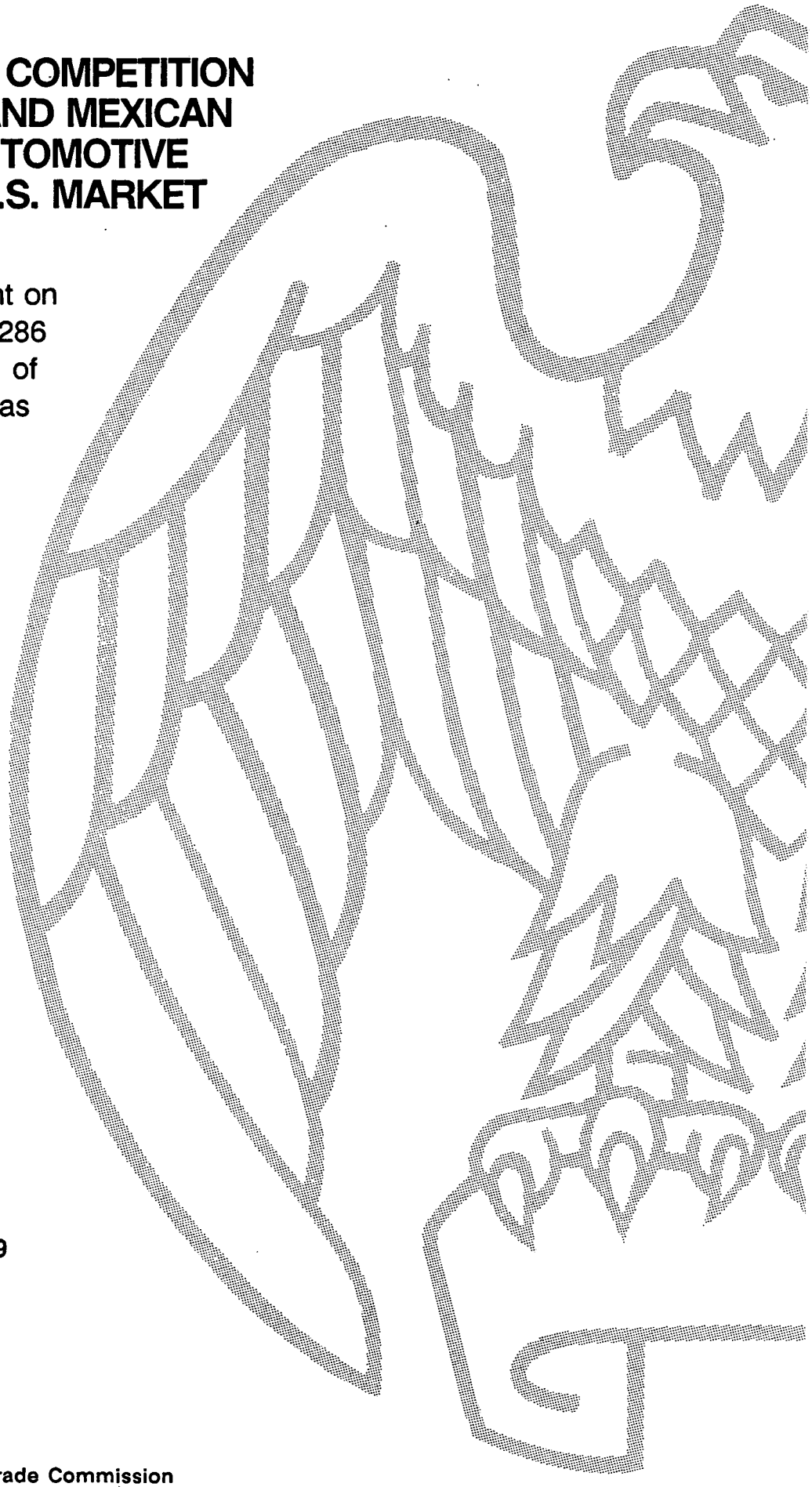
CONDITIONS OF COMPETITION BETWEEN U.S. AND MEXICAN FABRICATED AUTOMOTIVE GLASS IN THE U.S. MARKET

Report to the President on Investigation No. 332-286 Under Section 332 (g) of the Tariff Act of 1930 as Amended



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Washington, DC 20436

UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMISSIONERS

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

Staff assigned

Bruce Cates, Investigator
James Bedore, Commodity-Industry Analyst
Nancy Ody, Economist
James Stewart, Accountant/Financial Analyst
William Kane, Attorney

Vera Libeau, Supervisory Investigator

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

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Note.--Information that would reveal confidential operations of individual concerns may not be published and therfore has been deleted from this report. Such deletions are indicated by asterisks.

EXECUTIVE SUMMARY

Two kinds of glass are used for automobile windows: tempered and laminated. Both are made from the raw material "float" glass. Tempered glass is used in the side and rear windows of automobiles and trucks (although laminated glass may be used in some applications). Tempered glass is stronger than ordinary annealed glass and when broken fractures into many small pieces without the jagged edges characteristic of annealed glass. By law, windshields of automobiles and trucks must be made of laminated glass. Laminated glass incorporates a sheet of clear or tinted plastic between two layers of float glass. Laminated glass is used for automobile windshields because severe impacts will break the glass but will not totally impair vision or rupture the plastic interlayer. The latter provides adhesion so that splinters will not fly.

Following a request from the U.S. Trade Representative, the Commission instituted an investigation on December 26, 1989, to report to the President on conditions of competition in the U.S. market between U.S. and Mexican fabricated automotive glass--specifically whether (1) an industry in the United States would be materially injured or would be threatened with material injury, or (2) the establishment of an industry in the United States would be materially retarded, if the outstanding countervailing duty order on fabricated automotive glass from Mexico were revoked by the Department of Commerce.

The principal findings for the period 1987-89 are highlighted below:

--Consumption of fabricated automotive glass increased annually, rising 12.7 percent from 581.0 million square feet in 1987 to 654.8 million square feet in 1989.

--Production increased 10.1 percent from 503.2 million square feet in 1987 to 554.1 million square feet in 1988, then declined 4.3 percent to 530.5 million square feet in 1989. Capacity utilization increased from 74.3 percent in 1987 to 76.0 percent in 1988, then declined to 68.9 percent in 1989.

--Domestic shipments increased 8.4 percent from 462.4 million square feet in 1987 to 501.3 million square feet in 1988, then declined 4.9 percent to 476.6 million square feet in 1989.

--Producers' inventories averaged 6.5 percent of total shipments in 1987, 6.1 percent in 1988, and 6.5 percent in 1989.

--Employment increased annually, rising 8.2 percent from 7,763 production workers in 1987 to 8,398 in 1989. Hours worked by such workers increased 11.4 percent during that period, total wages increased 22.0 percent, and average hourly wages increased 9.3 percent.

--Financial performance measured in terms of net sales increased 5.2 percent from $1.38 billion in 1987 to $1.45 billion in 1988, and decreased 1.3 percent to $1.43 billion in 1989. As a share of net sales, operating income margins were 13.7 percent in 1987, 9.4 percent in 1988, and 7.5 percent in 1989.

--Imports from Mexico were valued at $109 million in 1987, $107 million in 1988, and $98 million in 1989.

--Market penetration of imports of fabricated automotive glass from Mexico was 6.0 percent in 1987, 6.0 percent in 1988, and 5.8 percent in 1989.

--Producers' prices vary widely according to the specifications of the glass and the type of purchaser to which the glass is being sold. Higher prices are charged for larger pieces of glass, for greater curvature and for more extensive tint. Prices also vary according to whether the glass is encapsulated in plastic and whether it has fixtures and attachments. Prices to original equipment manufacturers are lower than those to aftermarket purchasers.

As explained in Chapter 4 of this report, Chairman Brunsdale, Vice Chairman Cass, and Commissioner Newquist find that an industry in the United States would not be materially injured or threatened with material injury, nor would the establishment of an industry in the United States be materially retarded, if the outstanding countervailing duty (CVD) order on fabricated automotive glass from Mexico were revoked. Commissioner Eckes finds that an industry in the United States would be materially injured if the CVD order on fabricated automotive glass from Mexico were revoked. Commissioner Lodwick finds that an industry in the United States would be threatened with material injury if the CVD order on fabricated automotive glass from Mexico were revoked.[1]

[1] Commissioner Rohr did not participate in this investigation.

CHAPTER 1: INTRODUCTION

On December 26, 1989, the Commission received a request from the U.S. Trade Representative (USTR) to conduct an investigation and report to the President on conditions of competition in the U.S. market between U.S. and Mexican fabricated automotive glass--specifically whether (1) an industry in the United States would be materially injured, or would be threatened with material injury, or (2) the establishment of an industry in the United States would be materially retarded, if the outstanding countervailing duty order on imports of fabricated automotive glass from Mexico (50 F.R. 1906, January 14, 1985) were revoked by the Department of Commerce. USTR requested that the Commission inquire into the following elements: (1) the volume of imports of the merchandise that is the subject of the investigation, (2) the effect of imports of the merchandise on prices in the United States for like products, and (3) the impact of such imports on domestic producers of like products. USTR further stated that the above terms are defined at 19 U.S.C. § 1677. Accordingly, effective December 26, 1989, the Commission instituted investigation No. 332-286, concerning conditions of competition in the U.S. market between U.S. and Mexican fabricated automotive glass. The Commission delivered its report to the President on May 18, 1990.

Notice of the institution of the Commission's investigation and the public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, D.C., and by publishing the notice in the Federal Register of January 18, 1990 (55 F.R. 1738). [1] The hearing was held in Washington, DC on April 12, 1990. [2] The Commission has conducted no statutory investigations with respect to fabricated automotive glass.

Origin of the Present Investigation

The countervailing duty order of concern in this investigation resulted from a petition filed with the Department of Commerce on July 31, 1984, on behalf of PPG Industries (PPG), Inc., Pittsburgh, PA, alleging that Mexico pays or bestows, directly or indirectly, subsidies, bounties, or grants within the meaning of section 303 of the Tariff Act of 1930 (the Act) upon the manufacture, production, and export of fabricated automotive glass manufactured in Mexico. Commerce announced on August 27, 1984 (49 F.R. 33919) that it was investigating the allegations and on January 14, 1985, published its final determination (50 F.R. 1906) [3] that certain benefits that constitute bounties or grants within the meaning of the countervailing duty law are being

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[1] A copy of the Commission's Federal Register notice is presented in app. A; the letter from USTR requesting the investigation is presented in app. B.

[2] A list of witnesses who appeared at the Commission's hearing is presented in app. C.

[3] A copy of Commerce's final determination is presented in app. D.

provided to manufacturers or exporters in Mexico of fabricated automotive glass. [4]

Mexico, at that time, was not a "country under the Agreement" within the meaning of section 701(b) of the Act, and, therefore, section 303 of the Act applied to the investigation. No injury determination was required by the U.S. International Trade Commission because there were no "international obligations" within the meaning of section 303(a)(2) of the Act that required such a determination for nondutiable merchandise from Mexico. On August 24, 1986, Mexico acceded to the General Agreement on Tariffs and Trade (GATT). Thereafter, USTR stated in its letter that "the Department of Commerce has concluded that it lacks the authority under Article VI of the GATT and section 303(a)(2) of the Act, to levy countervailing duties on Mexican duty-free imports of fabricated automotive glass if there has not been a prior affirmative injury determination."

Nature and Extent of the Subsidies

On January 14, 1985, Commerce published in the Federal Register a notice of final affirmative countervailing duty determination and countervailing duty order on fabricated automotive glass from Mexico. Commerce found two programs to confer bounties or grants to manufacturers or exporters in Mexico of fabricated automotive glass, except that manufactured and exported by L-N Safety Glass. The countervailing duty order established a rate of cash deposit of 4.6 percent ad valorem, equal to the amount of the estimated net bounty or grant. [5]

The programs that were determined by Commerce to confer subsidies were (1) Fund for the Promotion of Exports of Mexican Manufactured Products (FOMEX), and (2) Preferential Federal Tax Incentives (CEPROFI). Brief descriptions of the programs follow.

FOMEX is a trust established by the Government of Mexico to promote the manufacture and sale of exported products. The fund is administered by the Mexican Treasury Department, with the Bank of Mexico acting as the trustee. On July 27, 1983, FOMEX was formally incorporated into the National Bank of Foreign Trade (NBFT). The NBFT administers the financing of FOMEX loans through financial institutions, which establish contacts for lines of credit with manufacturers and exporters.

In order for a company to be eligible for FOMEX financing for exports, the following requirements must be met: (1) the product to be manufactured must be included on a list made public by FOMEX; (2) the company must have a majority of Mexican capital; (3) the articles to be exported must have a minimum of 30 percent national content in direct production costs; (4) loans granted for pre-export must be in Mexican currency while loans for export

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[4] Commerce found no bounties or grants with respect to fabricated automotive glass manufactured or exported by L-N Safety Glass; therefore L-N Safety Glass was excluded from this order.

[5] The period for which Commerce measured benefits was the calendar year 1983, except as discussed later in this section.

sales are established in U.S. dollars or in any other foreign currency acceptable to the Bank of Mexico; and (5) the exporter must carry insurance against commercial risks to the extent of the loans.

During 1983, the maximum annual interest rate for FOMEX pre-export financing was 8 percent, and for FOMEX export financing 6 percent. Prior to Commerce's preliminary determination in April 1984, the FOMEX interest rates were increased to 7.1 percent for export financing and 19.3 percent for pre-export financing. For export loans Commerce took this program-wide change, made prior to the preliminary determination, into account for duty deposit purposes. Commerce lacked sufficient data to do so for the pre-export loans. Therefore, Commerce used the period April 1, 1984 to June 30, 1984 as the review period for export loans; that was the period subsequent to the program-wide change for which verified data were available. During April-June 1984, Vitro Flex and Crinamex [6] received short-term export financing from FOMEX for exports to the United States of the subject merchandise. Commerce allocated the benefit over the value of exports to the United States of fabricated automotive glass and calculated a weighted-average bounty or grant in the amount of 3.58 percent ad valorem.

CEPROFIs are used to promote National Development Plan (NDP) goals, which include increased employment, encouragement of regional decentralization, and industrial development, particularly of small and medium-sized firms. CEPROFI certificates are tax certificates of fixed value, which may be used for a five-year period to pay federal taxes. Certain CEPROFI certificates are granted for carrying out investment in "priority" industrial activities; others are available to all industries on equal terms.

Vitro Flex received CEPROFIs for carrying out investment in priority industrial activities. These CEPROFIs were for investment to increase productivity. Commerce allocated the CEPROFI benefit over the total sales of the subject merchandise and determined a weighted-average bounty or grant in the amount of 1.10 percent ad valorem. [7]

The United States has had an agreement with Mexico since 1984 stipulating that Mexican programs such as CEPROFIs, FOMEX, and certain others would not be used for the making of float glass (which is used in the manufacture of fabricated automotive glass). Commerce has monitored the agreement quarterly and verified Mexican compliance annually since that time. Commerce has determined that Mexican motor vehicle glass fabricators received no preferential treatment from such programs in 1986, the latest ruling being dated December 19, 1989 (54 F.R. 51908). Commerce did determine that certain

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[6] The two Mexican producers subject to investigation at that time, other than L-N Safety Glass.

[7] At the Commission hearing, Counsel for Vitro Flex and Crinamex stated that the CEPROFI program no longer exists. Transcript of the hearing (TR.), p. 64. Mr. Miquel Leaman, Minister of Trade Affairs, Embassy of Mexico, informed the Commission by letter of Apr. 18, 1990, that the Government of Mexico confirms that the benefits available in 1984 are unavailable today. Mr. Stewart, counsel for PPG, contends that, as with another Mexican program, even if the CEPROFI program is deemed to be discontinued, payments that carry the same name may continue to be made. TR., p. 35.

Mexican glass fabricators received a total bounty or grant of 2.45 percent ad valorem in 1984 and 0.17 percent ad valorem in 1985 (51 F.R. 44652, December 11, 1986). [8]

The Product

Description and uses

Two kinds of glass are used for automobile windows: tempered and laminated. Both are made from the raw material "float" glass. Float glass is so named because the production process "floats" a continuous strip (ribbon) of raw molten glass on top of a bed of molten tin. The ribbon is slowly cooled to a predetermined uniform thickness as it moves along the production line, producing annealed float glass that is flat in shape. The glass is cut into pre-set dimensions at the end of the line.

Toughened (tempered) glass is used in the side and rear windows of automobiles and trucks (although laminated glass may be used in some applications). Float glass is tempered by (re)heating a sheet of float glass to near its softening point, then cooling it rapidly by means of air jets. The surfaces cool and contract while the interior of the glass is relatively warm. The surface of the glass is then in compression, balanced by tension inside; permanent stresses are thus set up in the glass. Tempered glass is usually three to five times stronger than ordinary annealed glass when subjected to blunt force impact, thermal shock, or sustained loads. When tempered glass does break, it fractures into many small pieces without the jagged edges characteristic of annealed glass, and is therefore not likely to inflict serious wounds. Tempered glass cannot be cut after fabrication, so the tempering process must be done to final sizes of float glass.

By law, windshields of automobiles and trucks must be made of laminated glass. Laminated glass is made by sandwiching a sheet of clear or tinted plastic (usually polyvinyl butyral) between two layers of float glass. Since windshields are usually curved, paired sheets of float glass are placed on a suitably shaped frame in a furnace; the sheets soften and take on their required contours. Next, the thoroughly dried plastic is introduced between the two glass layers in an air-conditioned room, the temperature of which does not exceed 60 degrees F. and which has a maximum relative humidity of 30 percent. Preliminary adhesion is obtained by means of mild heating and pressure applied by rubber rollers. The assembly is then placed in an autoclave (closed vessel) in which the pressure is raised to about 50 pounds per square inch and the temperature to slightly above normal boiling point.

Laminated glass is used for automobile windshields because severe impacts will break the glass but will not totally impair vision or rupture the

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[8] On Dec. 11, 1986, Commerce found the bounty or grant received for calendar year 1985 was de minimis and directed the Customs Service to waive the assessment of countervailing duties on entries made during calendar year 1985, Prehearing brief on behalf of Vitro Flex and Crinamex, p. 13. Commerce found zero benefits in its last annual review covering 1986; since that time countervailing duties have been waived by the Customs Service.

plastic interlayer. The latter provides adhesion so that splinters will not fly.

U.S. tariff treatment

Tempered and laminated automotive glass are provided for in subheadings 7007.11.00 and 7007.21.10, respectively, of the Harmonized Tariff Schedule of the United States (HTS). These products were previously classified in items 544.31 and 544.32 (tempered) and 544.41 and 544.42 (laminated) of the former Tariff Schedules of the United States (TSUS). [9]

U.S. imports from countries entitled to the column 1-general rate (most-favored-nation rate) are subject to a tariff of 6.2 percent ad valorem for tempered automotive glass and 5.5 percent ad valorem for laminated automotive glass. U.S. imports of the subject products may be eligible for preferential tariff treatment under one or more programs, including the Automotive Products Trade Act and the United States-Canada Free-Trade Agreement Implementation Act of 1988. Under provisions of the United States-Canada Free Trade Agreement, certain replacement automotive glass originating in the territories of Canada, intended for use in the repair or maintenance of certain motor vehicles, receives duty rate reductions under HTS heading 9905.00.00.

U.S. Producers

In addition to the petitioner, PPG, 8 other firms are believed to manufacture fabricated automotive glass in the United States. A list of the producers, their position with respect to revocation of the outstanding countervailing duty order, and their 1989 production of tempered and laminated glass are presented in the following tabulation:

		Production in 1989		
Company	Position on revocation	Tempered	Laminated 1/	Total
		----Million sq. ft.----		
A.P. Technoglass	***	***	***	***
Ford	supports	***	***	***
Guardian	***	***	***	***
HGP	***	***	***	***
LOF	***	***	***	***
McGraw	***	***	***	***
PPG	opposes	***	***	***
Safelite	***	***	***	***
Viracon	***	***	***	***

1/ Measurement denotes surface area of finished windshields and other laminated glass.
2/ ***.

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

[9] The HTS replaced the TSUS effective Jan. 1, 1989.

PPG is headquartered in Pittsburgh, PA, and operates seven plants located in Creighton, PA; Greensburg, PA; Crestline, OH; Tipton, PA; Evansville, IN; Chillicothe, OH; and Berea, KY. [10] A.P. Technoglass (AP) operates two plants located in Bellefontaine, OH, and Elizabethtown, KY. The Kentucky plant was opened on March 21, 1989, and the Ohio plant underwent expansion in April 1989. Ford Motor Co. (Ford) operates three glass plants in the United States located in Tulsa, OK; Nashville, TN; and Dearborn, MI. Ford also owns or is affiliated with one Canadian and two Mexican firms (Vitro Flex and Auto Vidrio) that manufacture fabricated automotive glass. [11] Guardian Industries, Inc. (Guardian) operates four plants located in Upper Sandusky, OH; Auburn, OH; Millbury, OH; and Rogers, AR. Hordis Brothers changed its company name to HGP Automotive Glass (HGP) in December 1989. HGP produces fabricated automotive glass in a plant in Lancaster, PA. Libby-Owens-Ford (LOF) is located in Toledo, OH, with four plants located in Lathrop, CA; Rossford, OH; Sherman, TX; and Versailles, KY. [12] McGraw Glass Div.-Acustar, Inc. (McGraw) is located in Detroit, MI. McGraw, which is a division of Chrysler Corp., did not provide information on plant locations. ***. The firms that did not respond are believed to be small or producing solely for captive consumption.

U.S. Importers

According to the Customs Net Import File, seven firms import fabricated automotive glass from Mexico. The Commission received usable questionnaire responses from Ford, Globe-Amerada, and L-N of America Inc. Ford's imports were supplied by Vitro Flex S.A. and Auto Vidrio, both firms related to Ford. Globe-Amerada Glass Co. is located at Elk Grove Village, IL, but has a warehouse in Laredo, TX, from which it ships all of its imported glass from Mexico. Globe-Amerada obtains its Mexican glass from CRINAMEX. [13] L-N of America obtains its glass from L-N Safety, SA, the Mexican producer excluded from Commerce's countervailing duty order. Together, the three responding firms accounted for *** percent of the fabricated automotive glass imported from Mexico in 1987, *** percent in 1988 and *** percent in 1989. [14] The remaining four firms import ***, predominantly from CRINAMEX, for the replacement market.

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[10] PPG either owns or is affiliated with *** foreign plants that manufacture fabricated automotive glass. ***.

[11] In November 1989, Ford announced a new joint venture plant called Carlex, which will be 49 percent owned by Ford and 51 percent owned by a Japanese company. The plant, to be built in Tennessee, will purchase flat glass from Ford and provide fabricated automotive glass parts to Japanese original equipment manufacturers in North America and overseas. TR., p. 69. The plant is expected to begin production in 1991.

[12] LOF's Versailles, KY plant was listed as a separate producer, United L-N Glass, in the original petition and in petitioner's briefs.

[13] Globe Amarada imports glass for the replacement market. TR., p. 89.

[14] ***.

Channels of Distribution

There are two markets for automotive glass: the original equipment manufacturers (OEM market) and the automotive replacement glass (ARG market). U.S. glass producers sell to either market but the principal market for automotive glass is the OEM market. [15] In the replacement market, the principal customers are insurance companies in the United States. These companies reportedly are not concerned with who made the original windshield, side window, or rear window in the car being repaired. They want a replacement that fits at the lowest price. [16]

Since 1987, the ARG market has undergone a period of consolidation and reorganization. U.S. automotive glass manufactures have pursued vertical integration into the market place by acquisition and/or expansion of distribution networks and retail outlets. Such acquisitions and expansions have enabled the manufacturers to acquire a larger captive market for the sale of their automotive glass to the ultimate consumer. [17]

Producers were requested to report the percentage of their total sales to OEM purchasers and to ARG market purchasers in 1987-89 (table 1). ***.

Table 1
Fabricated automotive glass: Distribution of sales to the OEM and ARG markets, 1987-89

(Percentage of sales)

Producer	1987		1988		1989	
	OEM	ARG	OEM	ARG	OEM	ARG
Ford	***	***	***	***	***	***
Guardian	***	***	***	***	***	***
HGP.....	***	***	***	***	***	***
LOF.....	***	***	***	***	***	***
PPG	***	***	***	***	***	***

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

Producers were also asked to provide the distribution of their sales among major OEM customers for 1989 (table 2). ***.

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[15] According to Ford's posthearing statement (p. 1), 94 percent of the tempered glass is sold to the OEM market as is 57 to 59 percent of the laminated glass.

[16] TR., p. 25.

[17] TR., p. 86.

Table 2
Fabricated automotive glass: Distribution of sales to OEM customers, 1989

	(Percentage of sales)						
	Customers						
Producer	Chrysler	Ford	GM	Honda	Nissan	Toyota	Others
Ford	***	***	***	***	***	***	*** 1/
Guardian.....	***	***	***	***	***	***	*** 2/
HGP.....	***	***	***	***	***	***	*** 3/
LOF.....	***	***	***	***	***	***	*** 4/
PPG	***	***	***	***	***	***	*** 5/

1/ ***.
2/ ***.
3/ ***.
4/ ***.
5/ ***.

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

Apparent U.S. Consumption

The demand for fabricated automative glass is directly proportional to the production rate in the automotive industry. [18] The actual and projected production rates are as follows (in thousands): [19]

Year	Passenger cars	Light trucks	Total U.S. production
1987----------	7,085	3,821	10,906
1988----------	7,105	4,121	11,226
1989----------	6,846	4,079	10,925
1990 1/----------	6,825	4,070	10,895
1991 1/----------	6,945	4,482	11,427

1/ Projected.

Apparent U.S. consumption of fabricated automotive glass (including company transfers) increased annually, rising 12.7 percent from 581.0 million square feet in 1987 to 654.8 million square feet in 1989. The share of U.S. consumption supplied by domestic producers increased from 79.6 percent in 1987 to 80.4 percent in 1988, then declined to 72.8 percent in 1989 (table 3).

[18] TR., p. 25.

[19] Ford's posthearing statement, p. 1.

Table 3
Fabricated automotive glass: U.S. producers' domestic shipments, imports for consumption, and apparent consumption, total and by types of glass, 1987-89

Item	Domestic shipments 1/	Imports	Apparent consumption	Ratio (percent) to consumption: Producers' shipments	Ratio (percent) to consumption: Imports
	Quantity (1,000 square feet)				
Tempered glass:					
1987	287,295	57,664	344,959	83.3	16.7
1988	307,275	58,565	365,840	84.0	16.0
1989	295,047	72,546	367,593	80.3	19.7
Laminated glass:					
1987	175,087	60,962	236,049	74.2	25.8
1988	193,993	63,480	257,473	75.3	24.7
1989	181,556	105,684	287,240	63.2	36.8
Total:					
1987	462,382	118,626	581,008	79.6	20.4
1988	501,268	122,045	623,313	80.4	19.6
1989	476,603	178,230	654,833	72.8	27.2
	Value (1,000 dollars)				
Tempered glass:					
1987	679,905	151,262	831,167	81.8	18.2
1988	712,235	155,860	868,095	82.0	18.0
1989	688,489	148,705	837,194	82.2	17.8
Laminated glass:					
1987	595,662	224,332	819,994	72.6	27.4
1988	641,123	231,596	872,719	73.5	26.5
1989	617,160	240,836	857,996	71.9	28.1
Total:					
1987	1,275,567	375,594	1,651,161	77.3	22.7
1988	1,353,358	387,456	1,740,814	77.7	22.3
1989	1,305,649	389,541	1,695,190	77.0	23.0

1/ Includes company transfers.

Source: Producers' domestic shipments compiled from data submitted in response to questionnaires of the U.S. International Trade Commission; U.S. imports compiled from official statistics of the U.S. Department of Commerce.

Tempered glass

Apparent U.S. consumption of tempered glass increased 6.6 percent from 345.0 million square feet in 1987 to 367.6 million square feet in 1989. The share of U.S. consumption of tempered glass supplied by U.S. producers increased from 83.3 percent in 1987 to 84.0 percent in 1988 and then declined to 80.3 percent in 1989.

Laminated glass

Apparent U.S. consumption of laminated glass increased 21.7 percent from 236.0 million square feet in 1987 to 287.2 million square feet in 1989. The share of U.S. consumption supplied by U.S. producers increased from 74.2 percent in 1987 to 75.3 percent in 1988, then declined to 63.2 percent in 1989.

Apparent U.S. Open-market Consumption

Apparent U.S. open-market consumption of fabricated automotive glass increased *** percent from *** million square feet in 1987 to *** million square feet in 1989. U.S. producers' share of open-market consumption declined irregularly from *** percent in 1987 to *** percent in 1989 (table 4).

Tempered glass

Open-market consumption of tempered glass increased annually, rising *** percent from *** million square feet in 1987 to *** million square feet in 1989. U.S. producers' share of open-market shipments declined annually from *** percent in 1987 to *** percent in 1989.

Laminated glass

Open-market consumption of laminated glass increased annually, rising *** percent from *** million square feet in 1987 to *** million square feet in 1989. U.S. producers' share of open-market consumption increased from *** percent in 1987 to *** percent in 1988, then declined to *** percent in 1989.

Table 4
Fabricated automotive glass: U.S. producers' open-market shipments, imports for consumption, and apparent open-market consumption, total and by types of glass, 1987-89

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CHAPTER 2: THE U.S. INDUSTRY

Questionnaires were mailed to 12 firms believed to be U.S. producers of fabricated automotive glass. Two firms no longer manufacture fabricated automotive glass, one (United L-N) was included in LOF's questionnaire response, 2 firms did not respond to the questionnaire, and 1 firm supplied only partial data. A.P. Technoglass, the firm that supplied partial data, ***. The two firms that did not respond are believed to be producing solely for captive consumption. The following sections of this report concerning the U.S. industry were compiled from questionnaires from the six responding firms, accounting for an estimated 80 percent or more of total shipments and 90-95 percent of open-market shipments.

U.S. Capacity, Production, and Capacity Utilization

U.S. capacity to manufacture fabricated automotive glass, as reported by the 6 U.S. producers, increased annually, rising 13.6 percent from 677.4 million square feet in 1987 to 769.6 million square feet in 1989. Production increased 10.1 percent from 503.2 million square feet in 1987 to 554.1 million square feet in 1988, then declined 4.3 percent to 530.5 million square feet in 1989. Capacity utilization increased from 74.3 percent in 1987 to 76.0 percent in 1988, then declined to 68.9 percent in 1989, as presented in the following tabulation:

Year	Capacity	Production	Capacity utilization
	(Million square feet)		(Percent)
1987.....	677.4	503.2	74.3
1988.....	729.5	554.1	76.0
1989.....	769.6	530.5	68.9

Tempered glass

U.S. capacity to produce tempered glass increased annually, rising 17.8 percent from 442.7 million square feet in 1987 to 521.3 million square feet in 1989. *** was the only responding producer that reported no increase in its capacity to produce tempered glass during 1987-89 (table 5). ***.

U.S. production of tempered glass increased 8.3 percent from 316.0 million square feet in 1987 to 342.2 million square feet in 1988, then declined 3.6 percent to 329.9 million square feet in 1989. Capacity utilization decreased annually from 71.4 percent in 1987 to 63.3 percent in 1989. *** firms, ***, reported lower capacity utilization in 1989 than in 1987.

Table 5
Tempered glass: U.S. capacity, production, and capacity utilization, by firms, 1987-89

Year	Firm						
	Ford	Guardian	HGP	LOF	McGraw	PPG	Total
	Capacity (1,000 square feet)						
1987.....	***	***	***	***	***	***	442,700
1988.....	***	***	***	***	***	***	489,532
1989.....	***	***	***	***	***	***	521,321
	Production (1,000 square feet)						
1987.....	***	***	***	***	***	***	315,987
1988.....	***	***	***	***	***	***	342,167
1989.....	***	***	***	***	***	***	329,927
	Capacity utilization (percent)						
1987.....	***	***	***	***	***	***	1/ 71.4
1988.....	***	***	***	***	***	***	1/ 69.9
1989.....	***	***	***	***	***	***	1/ 63.3

1/ Average.

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

Laminated glass

U.S. capacity to produce laminated glass also increased annually, rising 5.5 percent from 234.7 million square feet in 1987 to 247.5 million square feet in 1989 (table 6). ***. U.S. production of laminated glass increased 13.2 percent from 187.2 million square feet in 1987 to 212.0 million square feet in 1988, then declined 5.4 percent to 200.6 million square feet in 1989. Capacity utilization by U.S. producers averaged 79.8 percent in 1987, 88.3 percent in 1988, and 81.1 percent in 1989.

Table 6
Laminated glass: U.S. capacity, production, and capacity utilization, by firms, 1987-89

Year	Firm						
	Ford	Guardian	HGP	LOF	McGraw	PPG	Total
	Capacity (1,000 square feet)						
1987.....	***	***	***	***	***	***	234,680
1988.....	***	***	***	***	***	***	239,946
1989.....	***	***	***	***	***	***	247,477
	Production (1,000 square feet)						
1987.....	***	***	***	***	***	***	187,216
1988.....	***	***	***	***	***	***	211,964
1989.....	***	***	***	***	***	***	200,600
	Capacity utilization (percent)						
1987.....	***	***	***	***	***	***	1/ 79.8
1988.....	***	***	***	***	***	***	1/ 88.3
1989.....	***	***	***	***	***	***	1/ 81.1

1/ Average.

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

Producers' Domestic Shipments

Domestic shipments of fabricated automotive glass by U.S. producers (including company transfers) increased 8.4 percent from 462.4 million square feet in 1987 to 501.3 million square feet in 1988, then declined 4.9 percent to 476.6 million square feet in 1989. As a share of total domestic shipments, company transfers accounted for *** percent in 1987, *** percent in 1988, and *** percent in 1989. The value of total domestic shipments increased 6.1 percent from $1,275.6 million in 1987 to $1,353.4 million in 1988, then dropped 3.5 percent to $1,305.6 million in 1989. The average value of sales decreased from $2.76 a square foot in 1987 to $2.70 a square foot in 1988, and then increased to $2.74 a square foor in 1989, as presented in the following tabulation:

Year	Quantity (Million square feet)	Value (Million dollars)	Unit value (Per square foot)
1987.....	462.4	1,275.6	$2.76
1988.....	501.3	1,353.4	2.70
1989.....	476.6	1,305.6	2.74

Tempered glass

Total domestic shipments of tempered glass by responding U.S. producers increased 7.0 percent from 287.3 million square feet in 1987 to 307.3 million square feet in 1988, then declined 4.0 percent to 295.0 million square feet in 1989 (tables 3 and 7). Open-market shipments increased *** percent from *** million square feet in 1987 to *** million square feet in 1988, then declined *** percent to *** million square feet in 1989. Company transfers accounted for *** percent of total domestic shipments in 1987, ***. The value of domestic shipments increased 4.8 percent from $679.9 million in 1987 to $712.2 million in 1988, then declined 3.3 percent to $688.5 million in 1989. The average unit value of shipments decreased from $2.37 a square foot in 1987 to $2.32 a square foot in 1988 and then increased slightly to $2.33 a square foot in 1989.

Laminated glass

Total domestic shipments of laminated glass by U.S. producers increased 10.8 percent from 175.1 million square feet in 1987 to 194.0 million square feet in 1988, then declined 6.4 percent to 181.6 million square feet in 1989 (tables 3 and 8). Open-market shipments increased *** percent from *** million square feet in 1987 to *** million square feet in 1988, then declined *** percent to *** million square feet in 1989. Company transfers accounted for *** percent of total domestic shipments in 1987, *** percent in 1988, and *** percent in 1989.

The value of domestic shipments increased 7.6 percent from $595.7 million in 1987 to $641.1 million in 1988, then declined 3.7 percent to $617.2 million in 1989. The average unit value of shipments declined from $3.40 a square foot in 1987 to $3.30 a square foot in 1988, then returned to $3.40 a square foot in 1989.

Table 7
Tempered glass: Open-market shipments, company transfers, and total domestic shipments, by firms, 1987-89

* * * * * * *

Table 8
Laminated glass: Open-market shipments, company transfers, and total domestic shipments, by firms, 1987-89

* * * * * * *

U.S. Exports

U.S. exports of fabricated automotive glass, as reported by U.S. producers, increased annually, rising 15.5 percent from 46.2 million square feet in 1987 to 53.4 million square feet in 1989. The value of U.S. exports, the bulk of which went to Canada, Japan, and Mexico, increased 15.7 percent from $100.0 million in 1987 to $116.3 million in 1989. The average unit value of U.S. exports declined from $2.17 a square foot in 1987 to $2.12 a square foot in 1988, and then increased to $2.18 a square foot in 1989, as presented in the following tabulation:

Year	Quantity (Million square feet)	Value (Million dollars)	Unit value (Per square foot)
1987.....	46.2	100.4	$2.17
1988.....	52.2	110.6	2.12
1989.....	53.4	116.3	2.18

Tempered glass

U.S. exports of tempered glass, as reported by U.S. producers, increased 9.2 percent from 31.0 million square feet in 1987 to 33.8 million square feet in 1989 (table 9). The value of exports increased by 5.9 percent from $53.3 million in 1987 to $56.5 million in 1988, and by 5.4 percent to $59.5 million in 1989. The average unit value of exported tempered glass declined from $1.72 a square foot in 1987 to $1.66 a square foot in 1988, and then increased to $1.76 a square foot in 1989.

Table 9
Tempered glass: U.S. producers' exports, by firms, 1987-89

Year	Firm						
	Ford	Guardian	HGP	LOF	McGraw	PPG	Total
	Quantity (1,000 square feet)						
1987.....	***	***	***	***	***	***	30,954
1988.....	***	***	***	***	***	***	33,964
1989.....	***	***	***	***	***	***	33,797
	Value (1,000 dollars)						
1987.....	***	***	***	***	***	***	53,304
1988.....	***	***	***	***	***	***	56,459
1989.....	***	***	***	***	***	***	59,506
	Unit value (per square foot)						
1987.....	$***	$***	$***	$***	$***	$***	1/$1.72
1988.....	***	***	***	***	***	***	1/1.66
1989.....	***	***	***	***	***	***	1/1.76

1/ Average.

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

Laminated glass

U.S. exports of laminated glass, as reported by U.S. producers, increased annually, rising 28.5 percent from 15.3 million square feet in 1987 to 19.6 million square feet in 1989 (table 10). The value of exports increased 20.4 percent from $47.1 million in 1987 to $56.8 million in 1989. The average unit value declined 3.8 percent from $3.09 a square foot in 1987 to $2.90 a square foot in 1989.

Table 10
Laminated glass: U.S. producers' exports, by firms, 1987-89

ear	Firm						
	Ford	Guardian	HGP	LOF	McGraw	PPG	Total
	Quantity (1,000 square feet)						
1987.....	***	***	***	***	***	***	15,257
1988.....	***	***	***	***	***	***	18,250
1989.....	***	***	***	***	***	***	19,599
	Value (1,000 dollars)						
1987.....	***	***	***	***	***	***	47,145
1988.....	***	***	***	***	***	***	54,136
1989.....	***	***	***	***	***	***	56,758
	Unit value (per square foot)						
1987.....	$***	$***	$***	$***	$***	$***	1/$3.09
1988.....	***	***	***	***	***	***	1/2.97
1989.....	***	***	***	***	***	***	1/2.90

1/ Average.

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

U.S. Producers' Inventories

Yearend inventories of fabricated automotive glass increased annually, rising 3.4 percent from 33.2 million square feet in 1987 to 34.3 million square feet in 1989 (table 11). Yearend inventories averaged 7.2 percent of producers' domestic shipments in 1987, 6.7 percent in 1988, and 7.1 percent in 1989. Yearend inventories averaged 6.5 percent of total shipments (including exports) in 1987, 6.1 percent in 1988, and 6.5 percent in 1989.

Table 11
Fabricated automotive glass: U.S. producers' yearend inventories, by types and by firms, as of December 31, 1987-89

(In thousands of square feet)

Item	Firm						
	Ford	Guardian	HGP	LOF	McGraw	PPG	Total
Tempered glass:							
1987.....	***	***	***	***	***	***	21,820
1988.....	***	***	***	***	***	***	22,747
1989.....	***	***	***	***	***	***	23,770
Laminated glass:							
1987.....	***	***	***	***	***	***	11,341
1988.....	***	***	***	***	***	***	11,061
1989.....	***	***	***	***	***	***	10,506
Total:							
1987.....	***	***	***	***	***	***	33,161
1988.....	***	***	***	***	***	***	33,808
1989.....	***	***	***	***	***	***	34,276

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

Tempered glass

Yearend inventories of tempered glass held by U.S. producers increased annually, rising 8.9 percent from 21.8 million square feet in 1987 to 23.8 million square feet in 1989. Yearend inventories of tempered glass averaged 7.6 percent of producers' domestic shipments in 1987, 7.4 percent in 1988, and 8.1 percent in 1989. Yearend inventories of tempered glass averaged 6.9 percent of total shipments in 1987, 6.7 percent in 1988, and 7.2 percent in 1989.

Laminated glass

Yearend inventories of laminated glass held by U.S. producers declined annually, dropping 7.4 percent from 11.3 million square feet in 1987 to 10.5 million square feet in 1989. Yearend inventories of laminated glass averaged 6.5 percent of producers' domestic shipments in 1987, 5.7 percent in 1988, and 5.8 percent in 1989. Yearend inventories averaged 6.0 percent of total shipments in 1987 and 5.2 percent in 1988 and 1989.

Employment and Wages

The number of production workers manufacturing fabricated automotive glass increased annually, rising 8.2 percent from 7,763 in 1987 to 8,398 in 1989. Hours worked by production workers increased 11.4 percent from 15.2 million hours in 1987 to 16.9 million hours in 1989. Total wages paid to production workers increased 22.0 percent from $193.8 million in 1987 to $236.5 million in 1989. Average hourly wages increased 9.3 percent from $12.76 in 1987 to $13.95 in 1988, then increased slightly to $13.97 in 1989. Total compensation paid to production workers increased 19.9 percent from $277.5 million in 1987 to $332.8 million in 1989. Average hourly compensation increased 9.1 percent from $18.27 in 1987 to $19.93 in 1988, then declined 1.4 percent to $19.66 in 1989, as presented in the following tabulation:

Item	1987	1988	1989
Production workers----------number--	7,763	8,266	8,398
Hours worked----------millions--	15.2	16.2	16.9
Wages----------million dollars--	193.8	225.9	236.5
Total compensation-million dollars--	277.5	322.7	332.8
Average hourly--			
Wages----------	$12.76	$13.95	$13.97
Total compensation----------	$18.27	$19.93	$19.66

Tempered glass

The number of production and related workers employed in the manufacture of tempered glass increased annually, rising *** percent from *** in 1987 to *** in 1989 (table 12). [20] Hours worked by production workers increased *** percent from *** million hours in 1987 to *** million hours in 1989. However, output per hour declined *** percent from an average of *** square feet per hour in 1987 and 1988 to *** square feet per hour in 1989.

Total compensation, including fringe benefits, paid to production and related workers who manufactured tempered glass increased *** percent from $*** million in 1987 to $*** million in 1989 (table 13). Average hourly total compensation paid to production workers increased *** percent from $*** in 1987 to $*** in 1988, then declined to $*** in 1989. The unit labor cost of producing tempered glass rose *** percent from $*** a square foot in 1987 to $*** a square foot in 1989.

Table 12
Average number of production and related workers producing tempered glass in U.S. establishments, hours worked by such workers, and output per hour worked, by firms, 1987-89

* * * * * * *

[20] Data presented for the number of production workers are for 5 U.S. producers. ***.

Table 13
Total compensation and hourly total compensation paid to production and related workers producing tempered glass in U.S. establishments, and unit labor costs of such production, by firms, 1987-89

* * * * * * *

Laminated glass

The number of production workers employed in the manufacture of laminated glass increased *** percent from *** in 1987 to *** in 1989 (table 14). Hours worked on laminated glass by production workers increased *** percent during 1987-89. Output per hour increased from *** square feet in 1987 to *** square feet in 1988, then decreased to *** square feet in 1989.

Total compensation, including fringe benefits, paid to production and related workers for laminated glass increased *** percent from $*** million in 1987 to $*** million in 1989 (table 15). Average hourly total compensation increased *** percent from $*** in 1987 to $*** in 1988, then declined *** percent to $*** in 1989. The unit labor cost of producing laminated glass increased *** percent from $*** a square foot in 1987 to $*** a square foot in 1989.

Table 14
Average number of production and related workers producing laminated glass in U.S. establishments, hours worked by such workers, and output per hour worked, by firms, 1987-89

* * * * * * *

Table 15
Total compensation and average hourly compensation paid to production and related workers producing laminated glass in U.S. establishments, and unit labor costs of such production, by firms, 1987-89

* * * * * * *

U.S. producers were asked if they reduced the number of production workers producing fabricated automotive glass by at least 5 percent or 50 workers during any of the period January 1987-December 1989. *** companies, ***, reported such reductions as presented in the following tabulation:

Company	Date of reduction	Number of workers	Duration	Reason
*	*	*	*	*

Production and related workers employed by all the responding U.S. producers except *** are represented by unions. ***. Workers that produce fabricated automotive glass are represented by either the Aluminum Brick and Glass Workers International Union or the United Auto Workers Union.

Financial Experience of U.S. Producers

Six producers, accounting for approximately 80 percent or more of U.S. producers' total shipments of fabricated automotive glass in 1989, supplied income-and-loss data on fabricated automotive glass operations. The firms are Ford, Guardian, HGP, LOF, McGraw, and PPG Industries, Inc. The companies also provided income-and-loss data on tempered glass and laminated glass. The reporting producers, ***.

* * * * * * *

Fabricated automotive glass operations

Net sales of fabricated automotive glass increased 5.2 percent from $1.38 billion in 1987 to $1.45 billion in 1988, and decreased 1.3 percent to $1.43 billion in 1989. Operating income was $188.5 million in 1987, $136.2 million in 1988, and $106.6 million in 1989. Operating income margins, as a percent of sales, were 13.7 in 1987, 9.4 in 1988, and 7.5 in 1989. The fabricated automotive glass income-and-loss experience of the U.S. producers is presented in table 16. Net sales, operating income, and operating income margins for fabricated automotive glass, by firms, are presented in table 17.

Operations on tempered glass, --Net sales of tempered glass increased 5.4 percent from $733.2 million in 1987 to $772.7 million in 1988, as shown in table 18. Sales decreased 2.4 percent to $754.5 million in 1989. Operating income was $106.6 million in 1987, $63.3 million in 1988, and $37.7 million in 1989. Operating income margins, as a percent of sales, were 14.5 percent in 1987, 8.2 percent in 1988, and 5.0 percent in 1989. Net sales, operating income, and operating income margins for tempered glass are presented in table 19 for each company.

Operations on laminated glass,--Net sales of laminated glass increased 4.8 percent from $644.3 million in 1987 to $675.3 million in 1989, as shown in table 20. Operating income was $81.9 million in 1987, $72.9 million in 1988, and $68.9 million in 1989. Operating income margins, as a percent of sales, were 12.7 percent in 1987, 10.8 percent in 1988, and 10.2 percent in 1989. Net sales, operating income, and operating income margins for each company are presented in table 21.

Table 16
Income-and-loss experience of U.S. producers on their operations producing fabricated automotive glass, accounting years 1987-89

Item	1987	1988	1989
	Value (1,000 dollars)		
Trade sales	678,735	742,744	722,227
Company transfers	698,820	706,149	707,613
Total net sales	1,377,555	1,448,893	1,429,840
Cost of goods sold	1,062,078	1,171,220	1,190,065
Gross profit	315,477	277,673	239,775
General, selling, and administrative expenses	126,996	141,435	133,197
Operating income	188,481	136,238	106,578
Interest expense	***	***	***
Other income or (expense), net	***	***	***
Net income or (loss) before income taxes	177,548	130,795	106,639
Depreciation and amortization included above	52,944	57,734	61,529
Cash-flow 1/	230,492	188,529	168,168
	Share of net sales (percent)		
Cost of goods sold	77.1	80.8	83.2
Gross profit	22.9	19.2	16.8
General, selling, and administrative expenses	9.2	9.8	9.3
Operating income 2/	13.7	9.4	7.5
Net income or (loss) before income taxes	12.9	9.0	7.5
	Number of firms reporting		
Operating losses	1	0	0
Net losses	1	0	1
Data	6	6	6

1/ Cash-flow is defined as net income or loss plus depreciation and amortization.

2/ For comparison purposes, the operating income margins for stone, clay, and glass products computed from the Quarterly Financial Report of the U.S. Department of Commerce were 8.3 percent in 1987, 7.9 percent in 1988, and 7.3 percent for 1989.

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

Table 17
Income-and-loss experience of U.S. producers on their operations producing fabricated automotive glass, by firms, accounting years 1987-89

* * * * * * *

Table 18
Income-and-loss experience of U.S. producers on their operations producing tempered glass, accounting years 1987-89

Item	1987	1988	1989
	Value (1,000 dollars)		
Trade sales	***	***	***
Company transfers	***	***	***
Total net sales	733,235	772,726	754,491
Cost of goods sold	557,302	631,686	644,569
Gross profit	175,933	141,040	109,922
General, selling, and administrative expenses	69,337	77,713	72,226
Operating income	106,596	63,327	37,696
Interest expense	***	***	***
Other income or (expense), net	***	***	***
Net income or (loss) before income taxes	106,414	66,243	41,946
Depreciation and amortization included above	28,956	32,906	34,582
Cash-flow 1/	135,370	99,149	76,528
	Share of net sales (percent)		
Cost of goods sold	76.0	81.7	85.4
Gross profit	24.0	18.3	14.6
General, selling, and administrative expenses	9.5	10.1	9.6
Operating income	14.5	8.2	5.0
Net income or (loss) before income taxes	14.5	8.6	5.6
	Number of firms reporting		
Operating losses	2	0	2
Net losses	2	2	2
Data	6	6	6

1/ Cash-flow is defined as net income or loss plus depreciation and amortization.

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

Table 19
Income-and-loss experience of U.S. producers on their operations producing tempered glass, by firms, accounting years 1987-89

* * * * * * *

Table 20
Income-and-loss experience of U.S. producers on their operations producing laminated glass, accounting years 1987-89

Item	1987	1988	1989
	Value (1,000 dollars)		
Trade sales	***	***	***
Company transfers	***	***	***
Total net sales	644,320	676,167	675,349
Cost of goods sold	504,776	539,534	545,496
Gross profit	139,544	136,633	129,853
General, selling, and administrative expenses	57,659	63,722	60,971
Operating income	81,885	72,911	68,882
Interest expense	***	***	***
Other income or (expense), net	***	***	***
Net income or (loss) before income taxes	71,134	64,552	64,693
Depreciation and amortization included above	23,988	24,828	26,947
Cash flow 1/	95,122	89,380	91,640
	Share of net sales (percent)		
Cost of goods sold	78.3	79.8	80.8
Gross profit	21.7	20.2	19.2
General, selling, and administrative expenses	8.9	9.4	9.0
Operating income	12.7	10.8	10.2
Net income or (loss) before income taxes	11.0	9.5	9.6
	Number of firms reporting		
Operating losses	1	0	0
Net losses	1	0	1
Data	6	6	6

1/ Cash-flow is defined as net income or loss plus depreciation and amortization.

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

Table 21
Income-and-loss experience of U.S. producers on their operations producing laminated glass, by firms, accounting years 1987-89

* * * * * * *

Investment in productive facilities

All reporting companies provided data on their investment in productive facilities ***. These data are presented in table 22.

Capital expenditures

All companies provided data on capital expenditures for their tempered and laminated glass operations. These data are presented in table 23.

Research and development expenses

*** producers, ***, reported research and development expenses for fabricated automotive glass. ***.

Capital and investment

The Commission requested U.S. producers to describe any actual or potential negative effects of imports of fabricated automotive glass from Mexico on their firms' growth, investment, ability to raise capital, development, and production efforts. The Commission also requested the producers to state the impact of the imposition of the countervailing duty and projections if revoked. Their responses are shown in appendix E.

Table 22
Value of property, plant, and equipment of U.S. producers, as of the end of accounting years 1987-89

Item	1987	1988	1989
	Value (1,000 dollars)		
Fabricated automotive glass:			
Fixed assets:			
Original cost	830,027	907,645	1,008,268
Book value	509,551	552,111	601,916
Total assets 1/	673,655	790,527	934,030
Tempered glass:			
Fixed assets:			
Original cost	522,327	579,460	620,801
Book value	328,257	364,282	378,219
Total assets 2/	376,529	470,108	527,625
Laminated glass:			
Fixed assets:			
Original cost	307,700	328,185	387,467
Book value	181,294	187,829	223,697
Total assets 2/	297,126	320,415	406,405
	Return on book value of fixed assets (percent) 3/		
Fabricated automotive glass			
Operating return 4/	37.0	24.7	17.7
Net return 5/	34.8	23.7	17.7
Tempered glass:			
Operating return 4/	32.5	17.4	10.0
Net return 5/	32.4	18.2	11.1
Laminated glass:			
Operating return 4/	45.2	38.8	30.8
Net return 5/	39.2	34.4	28.9
	Return on total assets (percent) 3/		
Fabricated automotive glass:			
Operating return 4/	29.6	16.7	11.3
Net return 5/	28.6	16.4	11.8
Tempered glass:			
Operating return 4/	30.2	13.4	7.2
Net return 5/	30.7	14.4	8.6
Laminated glass:			
Operating return 4/	28.9	21.5	16.5
Net return 5/	25.8	19.3	16.1

See footnotes on next page.

Footnotes to table 22:

1/ Defined as book value of fixed assets plus current and noncurrent assets.

2/ Total assets for fabricated automotive glass are apportioned, by firm, to product groups on the basis of the ratio of the respective book values of fixed assets.

3/ Computed using data only from those firms supplying both asset and profit-and-loss information, and as such, may not be derivable from data presented.

4/ Defined as operating income or loss divided by asset value. For comparison purposes, operating returns on the book value of fixed assets for the stone, clay, and glass industry computed from the Quarterly Financial Report of the U.S. Department of Commerce were 22.2 percent in 1987, 20.4 percent in 1988, and 17.7 percent for 1989. The operating returns on total assets were 9.3 percent in 1987, 8.4 percent in 1988, and 7.3 percent for 1989.

5/ Defined as net income or loss divided by asset value.

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

Table 23
Capital expenditures by U.S. producers, accounting years 1987-89

(In thousands of dollars)

Item	1987	1988	1989
Fabricated automotive glass:			
Land and land improvements	***	***	***
Building and leasehold improvements	***	***	***
Machinery, equipment, and fixtures	129,776	94,795	115,090
Total	147,916	103,525	129,897
Tempered glass:			
Land and land improvements	***	***	***
Building and leasehold improvements	***	***	***
Machinery, equipment, and fixtures	61,858	59,161	45,735
Total	67,192	64,038	50,087
Laminated glass:			
Land and land improvements	***	***	***
Building and leasehold improvements	***	***	***
Machinery, equipment, and fixtures	67,918	35,634	69,355
Total	80,724	39,487	79,810

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

CHAPTER 3: THE FOREIGN INDUSTRY AND U.S. IMPORTS

The Mexican Industry

Five firms manufacture fabricated automotive glass in Mexico. Three firms, Vitro Flex, Cristales Inastillables De Mexico (CRINAMEX), and Shatterproof De Mexico, are all subsidiaries of Vitro S.A. [21] The two remaining firms, L-N Safety Glass and Auto Vidrio, are maquiladora operations. L-N Safety Glass (which was excluded by Commerce from the countervailing duty order) is a joint venture held by Libby-Owens-Ford and Nippon Sheet Glass. Auto Vidrio is owned 100 percent by Ford Motor Company. [22]

Data were provided by counsel for Vitro Flex and CRINAMEX and separately by LOF for L-N Safety Glass on those firms' operations in Mexico. [23] Separate data for the three firms, which account for the bulk of Mexican production and exports, follow. [24]

Vitro Flex

Vitro Flex has no U.S. operations or subsidiaries. ***. [25] Vitro Flex reports no plans to begin production of fabricated automotive glass in the United States.

Vitro Flex reports operations on tempered glass at *** percent of production capacity during 1987-89 and continuing at *** percent in 1990. Production of tempered glass by Vitro Flex increased *** percent from *** million square feet in 1987 to *** million square feet in 1988, then declined *** percent to *** million square feet in 1989. Production of tempered glass in 1990, as projected by Vitro Flex, will reach *** million square feet, an increase of *** percent from production in 1989 (table 24). Exports by Vitro Flex of tempered glass to the United States were stable at about *** million square feet annually during 1987-89 but are projected to increase to *** million square feet in 1990, or by *** percent from exports in 1989. As a share of tempered glass production, exports to the United States amounted to *** percent in 1987, *** percent in 1988, *** percent in 1989, and are projected to rise to *** percent in 1990.

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[21] According to the petition, Vitro, S.A. is a holding company for over 70 glass-related companies. The petition further states that Vitro companies produce flat glass, containers, glassware, fibers, and silicates and account for approximately 85 percent of the overall Mexican glass market.

[22] ***.

[23] ***.

[24] ***.

[25] ***.

Table 24
Tempered glass: Vitro Flex's capacity, production, home-market shipments, exports, and end-of-period inventories, 1987-89 and projected 1990

* * * * * * *

Capacity to produce laminated glass by Vitro Flex increased *** percent from *** million square feet in 1987 to *** million square feet in 1988, then declined *** percent to *** million square feet in 1988. Capacity is projected to decline an additional *** percent in 1990 to *** million square feet. Capacity utilization declined from *** percent in 1987 and 1988 to *** percent in 1989, and is projected to remain at *** percent 1990. Production of laminated glass by Vitro Flex increased *** percent from slightly less than *** million square feet in 1987 to *** million square feet in 1988, then dropped *** percent to *** million square feet in 1989. Vitro Flex has projected 1990 production at *** million square feet, *** percent below production in 1989 (table 25). Exports to the United States rose *** percent from *** million square feet in 1987 to *** million square feet in 1988, then dropped *** percent to *** million square feet in 1989. Exports to the United States are projected to total *** million square feet in 1990, *** percent below exports in 1989. As a share of Vitro Flex's production of laminated glass, exports to the United States accounted for *** percent in 1987, *** percent in 1988, *** percent in 1989, and are projected at *** percent for 1990.

Table 25
Laminated glass: Vitro Flex's capacity, production, home-market shipments, exports, and end-of-period inventories, 1987-89 and projected 1990

* * * * * * *

CRINAMEX

CRINAMEX has no U.S. operations and no ownership of any U.S. company involved with the merchandise subject to this investigation. CRINAMEX reports no current plans to begin U.S. production of fabricated automotive glass.

* * * * * * *

Capacity to produce laminated glass by CRINAMEX was *** million square feet in each year 1987 through 1989 and is projected *** at *** in 1990 (table 26). Production rose *** percent from *** million square feet in 1987 to *** million square feet in 1988. It continued to rise in 1989, reaching *** million square feet, an increase of *** percent from production in 1988. Production in 1990 is projected by CRINAMEX to reach *** million square feet, *** percent above production in 1989. Capacity utilization by CRINAMEX increased annually from *** percent in 1987 to *** percent in 1989 and is projected at *** percent in 1990.

Home-market shipments of laminated glass by CRINAMEX increased annually during 1987-89 and are projected to increase further in 1990. Such shipments increased *** percent from *** million square feet in 1987 to *** million square feet in 1988. Home-market shipments in 1989 totaled *** million square feet, *** percent more than shipments in 1988. They are projected to reach *** million square feet in 1990, an increase of *** percent from such shipments in 1989.

Exports of laminated glass to the United States by CRINAMEX increased *** percent from *** million square feet in 1987 to *** million square feet in 1988, then declined *** percent to *** million square feet in 1989. Exports to the United States in 1990 are projected by CRINAMEX to reach *** million square feet, an increase of *** percent from 1989. ***. As a share of CRINAMEX's production of laminated glass, exports to the United States amounted to *** percent in 1987, *** percent in 1988, *** percent in 1989, and are projected at *** percent in 1990.

Table 26
Laminated glass: CRINAMEX's capacity, production, home-market shipments, exports, and end-of-period inventories, 1987-89 and projected 1990

* * * * * * *

L-N Safety Glass

Data were obtained on production and capacity for L-N Safety Glass. [26] Capacity remained unchanged at *** million square feet during 1987-89. Production increased *** percent from *** million square feet in 1987 to *** million square feet in 1988, then declined *** percent to *** million square feet in 1989. Capacity utilization increased from *** percent in 1987 to *** percent in 1988, then dropped to *** percent in 1989 (table 27).

Table 27
Fabricated automotive glass: L-N Safety Glass's capacity and production, by types, 1987-89

* * * * * * *

U.S. Imports

U.S. imports of fabricated automotive glass increased 20.4 percent from 115.6 million square feet in 1984 [27] to 139.1 million square feet in 1985, then declined 14.7 percent to 118.6 million square feet in 1987. Imports rose by 2.9

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[26] L-N Safety Glass was excluded from Commerce's outstanding countervailing duty order.

[27] Import data are presented from 1984 because Commerce published its Federal Register notice of final affirmative countervailing duty determination and countervailing duty order with respect to exports of fabricated automotive glass from Mexico to the United States on Jan. 14, 1985.

percent to 122.0 million square feet in 1988. In 1989, U.S. imports of fabricated automotive glass rose substantially, increasing 46.0 percent from the level of imports in 1988 (table 28).

Table 28
Fabricated automotive glass: U.S. imports for consumption, by principal sources, 1984-89

Source	1984	1985	1986	1987	1988	1989
	Quantity (1,000 square feet)					
Canada.....	51,475	56,895	58,413	51,450	54,740	69,645
Mexico.....	38,759	55,234	22,985	34,730	37,653	37,981
Japan.....	5,311	6,884	13,715	8,469	7,969	13,413
Rep. of S. Africa.	1,063	3,269	4,131	6,386	4,028	16,260
Fed. Rep. of Germany...	2,458	2,627	3,658	1,983	2,733	5,997
All other...	16,500	14,202	15,756	15,608	14,922	34,934
Total.....	115,566	139,111	118,658	118,626	122,045	178,230
	Value (1,000 dollars)					
Canada.....	139,157	151,131	153,538	157,439	173,705	176,498
Mexico.....	45,552	67,641	68,468	109,231	107,481	97,883
Japan.....	23,420	23,957	41,412	40,520	39,789	37,670
Rep. of S. Africa.	5,467	8,868	14,645	19,989	16,268	21,699
Fed. Rep. of Germany...	9,719	11,814	15,265	16,749	17,383	13,353
All other...	18,189	22,408	25,323	31,666	32,830	42,438
Total.....	241,504	285,819	318,651	375,594	387,456	389,541
	Unit value (per square foot)					
Canada.....	$2.70	$2.66	$2.63	$3.06	$3.17	$2.53
Mexico.....	1.18	1.23	2.98	3.15	2.86	2.58
Japan.....	4.41	3.48	3.02	4.79	4.99	2.81
Rep. of S. Africa.	5.14	2.71	3.55	3.13	4.04	1.34
Fed. Rep. of Germany...	3.95	4.50	4.17	8.45	6.36	2.23
All other...	1.10	1.58	1.61	2.03	2.20	1.22
Average...	2.09	2.06	2.69	3.17	3.18	2.19

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

Tempered glass

U.S. imports of tempered glass from all sources increased 4.4 percent from 76.8 million square feet in 1984 to 80.2 million square feet in 1985, then declined annually to 57.7 million square feet in 1987. Imports rose slightly in 1988 to 58.6 million square feet, a level 23.7 percent below imports in 1984. Imports increased substantially in 1989, rising 23.9 percent above their level in 1988. Imports from Canada and Japan accounted for most of the 1989 increase. Imports from Canada were 39.6 percent higher in 1989 than in 1988, and imports from Japan doubled (table 29). In 1989 Canada supplied 45.9 percent of the quantity of U.S. imports of tempered glass, Mexico supplied 21.3 percent and Japan 14.7 percent.

U.S. imports of tempered glass from Mexico increased 24.5 percent from 2.5 million square feet in 1984 to 32.1 million square feet in 1985, then declined 65.3 percent to 11.1 million square feet in 1986. Such imports increased 44.9 percent in 1987 to 16.1 million square feet, then declined irregularly to 15.5 million square feet in 1989. As a share of total imports of tempered glass, those from Mexico rose from 33.5 percent in 1984 to 40.0 percent in 1985, then declined irregularly thereafter to 21.3 percent in 1989.

Table 29
Tempered glass: U.S. imports for consumption, by principal sources, 1984-89

Source	1984	1985	1986	1987	1988	1989
	Quantity (1,000 square feet)					
Mexico.....	25,766	32,078	11,132	16,131	15,470	15,484
Japan.....	3,686	4,837	7,603	6,080	5,344	10,694
Rep. of South Africa.....	412	1,546	2,271	3,718	2,219	2,891
Canada.....	32,204	32,276	33,711	22,170	23,886	33,334
Fed. Rep. of Germany.	557	713	779	623	1,084	2,056
Taiwan.....	308	1,418	2,353	1,603	2,041	740
Romania.....	844	1,827	2,136	3,184	4,376	318
Brazil.....	3,054	804	2,965	862	1,547	2,105
All others..	9,975	4,702	3,683	3,293	2,598	4,924
Total.....	76,806	80,201	66,633	57,664	58,565	72,546
	Value (1,000 dollars)					
Mexico.....	20,519	29,562	25,332	39,849	32,252	25,717
Japan.....	16,061	16,623	23,550	26,707	27,042	26,501
Rep. of South Africa....	2,051	3,043	7,347	9,755	9,460	14,374
Canada.....	69,539	66,298	66,888	55,192	66,504	67,254
Fed. Rep. of Germany	3,681	4,747	5,223	6,593	5,687	4,853
Taiwan.....	336	1,501	2,136	2,297	4,120	947
Romania....	362	788	1,038	1,259	1,714	123
Brazil.....	1,286	1,109	727	1,721	1,108	1,801
All others.	9,163	8,046	7,442	7,889	7,973	7,135
Total....	122,999	131,717	139,682	151,262	155,860	148,705
	Unit value (per square foot)					
Mexico.....	$0.80	$0.92	$2.28	$2.47	$2.09	$1.66
Japan.....	4.36	3.44	3.10	4.39	5.06	2.48
Rep. of South Africa....	4.98	1.97	3.24	2.62	4.26	4.97
Canada.....	2.16	2.05	1.98	2.49	2.78	2.02
Fed. Rep. of Germany	6.61	6.66	6.71	10.58	5.25	2.36
Taiwan.....	1.09	1.06	.91	1.43	2.02	1.28
Romania....	.43	.43	.49	.40	.39	.39
Brazil.....	.42	1.38	.25	2.00	.72	.86
All others.	.92	1.73	2.02	2.40	3.07	1.45
Average..	1.60	1.64	2.10	2.62	2.66	2.05

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

Laminated glass

U.S. imports of laminated glass from all sources increased 52.0 percent from 38.8 million square feet in 1984 to 58.9 million square feet in 1985, declined 11.7 percent to 52.0 million square feet in 1986, then increased 22.0 percent to 63.5 million square feet in 1988. Imports increased substantially in 1989, rising 66.5 percent from 1988 (table 30). In 1989, imports from South Africa increased substantially and the Republic of Korea, which had supplied only small amounts of laminated glass during the 1984-88 period, exported 16.3 million square feet to the United States. Canada supplied 34.4 percent of U.S. imports of laminated glass in 1989, Mexico supplied 21.3 percent, the Republic of Korea supplied 15.4 percent, and the Republic of South Africa supplied 12.6 percent.

U.S. imports of laminated glass from Mexico increased 78.2 percent, from 13.0 million square feet in 1984 to 23.2 million square feet in 1985, declined 48.8 percent to 11.9 million square feet in 1986, then increased annually thereafter to 22.5 million square feet in 1989, an increase of 89.8 percent from imports in 1986. As a share of total imports, those from Mexico accounted for 33.5 percent in 1984, 39.3 percent in 1985, 22.8 percent in 1986, 30.5 percent in 1987, 34.9 percent in 1988, and 21.3 percent in 1989.

Imports by questionnaire respondents

U.S. imports by the three importers that supplied data in response to the Commission's questionnaire are presented in table 31. The responding firms accounted for *** percent of the fabricated automotive glass imported from Mexico in 1989. ***. [28]

Importers' inventories

***. Importers' yearend inventories increased *** percent from *** million square feet in 1987 to *** million square feet in 1988, then declined *** percent to *** million square feet in 1989. As a share of total imports by ***, yearend inventories accounted for *** percent in 1987, *** percent in 1988, and *** percent in 1989. Yearend inventories, as reported by the *** importers, are presented in the following tabulation (in thousand square feet):

* * * * * * *

[28] Ford accounted for *** percent of the fabricated automotive glass imported from Mexico in 1987, *** percent in 1988, and *** percent in 1989.

Table 30
Laminated glass: U.S. imports for consumption, by principal sources, 1984-89

Source	1984	1985	1986	1987	1988	1989
			Quantity (1,000 square feet)			
Mexico.....	12,993	23,156	11,853	18,599	22,183	22,497
Canada.....	19,271	24,619	24,702	29,280	30,854	36,311
Japan.....	1,625	2,047	6,112	2,389	2,625	2,719
Fed. Rep. of Germany...	1,901	1,914	2,879	1,360	1,649	3,941
Rep. of South Africa....	651	1,723	1,860	2,668	1,809	13,369
Australia..	19	296	505	776	1,518	667
All others.	2,301	5,155	4,114	5,889	2,842	1/ 26,180
Total....	38,760	58,910	52,025	60,962	63,480	105,684
			Value (1,000 dollars)			
Mexico.....	25,033	38,079	43,136	69,382	75,229	72,166
Canada.....	69,618	84,833	86,650	102,247	107,201	109,244
Japan.....	7,359	7,334	17,862	13,813	12,747	11,169
Fed. Rep. of Germany...	6,038	7,067	10,042	10,156	11,696	8,500
Rep. of South Africa....	3,416	5,825	7,298	10,234	6,808	7,325
Australia..	63	428	1,469	2,379	2,944	1,579
All others.	6,978	10,535	12,513	16,122	14,971	1/ 30,854
Total....	118,505	154,102	178,969	224,332	231,596	240,836
			Unit value (per square foot)			
Mexico.....	$1.92	$1.64	$3.64	$3.73	$3.39	$3.21
Canada.....	3.61	3.45	3.51	3.49	3.47	3.01
Japan.....	4.53	3.58	2.92	5.78	4.86	4.11
Fed. Rep. of Germany...	3.18	3.69	3.48	7.47	7.09	2.16
Rep. of South Africa....	5.25	3.38	3.92	3.84	3.76	.55
Australia..	3.29	1.45	2.91	3.07	1.94	2.37
All others.	3.03	2.04	3.04	2.74	5.25	1/ 1.17
Average..	3.06	2.62	3.44	3.68	3.65	2.28

1/ Includes 16,286,000 square feet valued at $1,612,000, with a unit value of $0.10, from the Republic of Korea.

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

Table 31
Fabricated automotive glass: U.S. imports from Mexico, by types and by importers, 1987-89

* * * * * * *

Market Penetration by Imports from Mexico

Based on total U.S. consumption, including company transfers, of fabricated automotive glass, imports from Mexico supplied 6.0 percent in 1987 and 1988, and 5.8 percent in 1989. U.S. producers' share of the U.S. market increased from 79.6 percent in 1987 to 80.4 percent in 1988, then declined to 72.8 percent in 1989 as imports from sources other than Mexico (principally Canada) substantially increased market share.

As a share of the U.S. open market for fabricated automotive glass, Mexico supplied *** percent in 1987, *** percent in 1988, and *** percent in 1989. U.S. producers' share of the open market increased from *** percent in 1987 to *** percent in 1988, then dropped to *** percent in 1989 (table 32). [29]

Table 32
Fabricated automotive glass: Share of total consumption and open-market consumption supplied by U.S. producers, imports from Mexico, and imports from all other sources, 1987-89

Item and Year	Consumption	Share of consumption supplied by-- U.S. producers	Mexico	Others	Total imports
	1,000 sq. ft.	Percent			
Total consumption:					
1987	581,008	79.6	6.0	14.4	20.4
1988	623,313	80.4	6.0	13.6	19.6
1989	654,833	72.8	5.8	21.4	27.2
Open-market consumption:					
1987	***	***	***	***	***
1988	***	***	***	***	***
1989	***	***	***	***	***

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

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

Tempered glass

Mexico's share of total U.S. consumption of tempered glass declined from 4.7 percent in 1987 to 4.2 percent in 1988 and 1989. U.S. producers' share of total U.S. consumption increased from 83.3 percent in 1987 to 84.0 percent in 1988, then declined to 80.3 percent in 1989 (table 33).

[29] *** accounted for *** percent of the imports from Mexico in 1987, *** percent in 1988, and *** percent in 1989. ***.

As a share of open-market consumption, imports from Mexico declined annually from *** percent in 1987 to *** percent in 1989. U.S. producers' share of the open market declined annually from *** percent in 1987 to *** percent in 1989.

Table 33
Tempered glass: Share of total consumption and open-market consumption supplied by U.S. producers, imports from Mexico, and imports from all other sources, 1987-89

Item and year	Consumption	Share of consumption supplied by-- U.S. producers	Mexico	Others	Total imports
	1,000 sq. ft.	Percent			
Total consumption:					
1987	344,959	83.3	4.7	12.0	16.7
1988	365,840	84.0	4.2	11.8	16.0
1989	367,593	80.3	4.2	15.5	19.7
Open-market consumption:					
1987	***	***	***	***	***
1988	***	***	***	***	***
1989	***	***	***	***	***

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

Laminated glass

Mexico's share of total U.S. consumption of laminated glass increased from 7.9 percent in 1987 to 8.6 percent in 1988, then declined to 7.8 percent in 1989. U.S. producers' share of the total market increased from 74.2 percent in 1987 to 75.3 percent in 1988, then declined to 63.2 percent in 1989 (table 34).

Table 34
Laminated glass: Share of total consumption and open-market consumption supplied by U.S. producers, imports from Mexico, and imports from all other sources, 1987-89

Item and year	Consumption	Share of consumption supplied by-- U.S. producers	Mexico	Others	Total imports
	1,000 sq. ft.	Percent			
Total consumption:					
1987.....	236,049	74.2	7.9	17.9	25.8
1988.....	257,473	75.3	8.6	16.0	24.7
1989.....	287,240	63.2	7.8	29.0	36.8
Open-market consumption:					
1987.....	***	***	***	***	***
1988.....	***	***	***	***	***
1989.....	***	***	***	***	***

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

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

As a share of open-market consumption, imports from Mexico increased from *** percent in 1987 to *** percent in 1988, then declined to *** percent in 1989. U.S. producers' share of open-market consumption increased from *** percent in 1987 to *** percent in 1988, then dropped to *** percent in 1989 as imports from sources other than Mexico (principally South Africa and South Korea) substantially increased market share.

Prices

The price of fabricated automotive glass varies widely according to the specifications of the glass and the type of purchaser to which the glass is being sold. There are thousands of different automobile glass pieces--approximately 700 domestic windshields, 500 foreign windshields, and 5,000 side and rear parts. Higher prices are charged for larger pieces of glass, for greater curvature, and for more extensive tint. [30] Prices also will vary according to whether the glass is encapsulated in plastic and whether it has fixtures or attachments. Prices to OEM purchasers are lower than those to aftermarket purchasers.

[30] A windshield is composed of a piece of vinyl pressed between two pieces of glass. A clear windshield is made of clear glass and clear vinyl, a tinted windshield of tinted glass and clear vinyl, and a shade windshield of tinted glass and tinted vinyl.

OEM market [31]

The procedures by which prices to OEM purchasers are determined vary from one purchaser to another. ***. Once an OEM purchaser has chosen a supplier for a particular piece of glass, that supplier is usually retained as long as the vehicle in which the glass is used is produced.

Bids may be on a platform basis, i.e., to supply the entire set of glass for a particular model, or for any combination of specific pieces. Side windows are always bid on in pairs.

General Motors has three principal suppliers--PPG, LOF, and Guardian. In 1989, ***. [32] ***. According to *** from General Motors, no Mexican glass is purchased by the company. General Motors does not purchase glass ***. [33]

Chrysler purchases automotive glass from McGraw, a Chrysler subsidiary, LOF, Ford (including Vitro Flex), PPG, and Guardian. Until the summer of 1987, McGraw supplied approximately *** percent of Chrysler's glass requirements. ***. Under the restructuring of Chrysler in 1987, McGraw became part of Acustar, a newly-formed Chrysler subsidiary, and is now required to submit competitive bids. [34] In 1988, when Chrysler purchased American Motors Corp. the company ***. [35] For the past two and a half years McGraw has provided approximately *** percent of all of Chrysler's glass requirements. The only Mexican glass purchased by Chrysler is from Vitro Flex. This glass is used in the XJ and MJ Jeeps and the Dodge Shadow and Plymouth Sundance. The contract to supply the glass for the Jeep was initially awarded to Ford for Vitro Flex by American Motors. The contract to supply glass for the Dodge Shadow and the Plymouth Sundance was awarded prior to 1986, the first year that these cars were produced. Chrysler does not purchase any Mexican glass from LOF. [36]

* * * * * * *

Ford Motor Company purchases most of its glass from its own glass division, which comprises three plants in the United States, one in Canada, and two in Mexico. From *** to *** percent of Ford's total requirements are

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[31] Five producers for the OEM market, Ford, Guardian, HGP, LOF, and PPG, and six OEM purchasers, Chrysler, Ford, GM, Honda, Nissan, and Toyota, returned questionnaires. Some companies provided limited information. This section is based largely on telephone conversations with OEM purchasers.

[32] ***.

[33] Conversation with ***, General Motors, Apr. 20, 1990.

[34] According to ***. Conversation on Feb. 27, 1990.

[35] According to ***. Conversation on Mar. 14, 1990.

[36] Conversation with ***, Chrysler, Apr. 20, 1990.

provided internally, with the percentage varying with the volume of the company's automobile production. If Ford's glass plants do not have the capacity or capability to meet its glass requirements, glass parts will be purchased from outside sources. Usually *** percent of Ford's annual glass requirements are supplied by external sources. In 1989, a peak year of demand for Ford vehicles ***. [37] ***, [38] *** percent by ***, *** percent by ***, [39] [40] and *** percent by ***.

The purchase analysis group of Ford's corporate staff continuously monitors the price of automotive glass charged by the company's glass division. Prices are determined on the basis ***. ***. Based on a global pricing analysis in 1988, Ford's glass division *** its fabricated auto glass prices to Ford automobile plants by *** to *** percent in 1989 and 1990. [41] The prices paid by Ford to Vitro Flex, the Mexican firm in which Ford has a *** ownership and which is subject to the CVD order, are ***. According to Vitro Flex, they accepted ***. [42]

A spokesman *** stated that the industry is moving away from bid pricing to target pricing, typically practiced by Japanese companies. [43] Under target pricing, purchasers seek to establish a relationship with one supplier and negotiate with that supplier to meet a target price. Only if the two companies fail to agree will the purchaser look for another supplier.

* * * * * * *

Fabricated automotive glass often includes fixtures or attachments, such as metal or plastic clips for attaching door glass to actuators, radio antenna connectors, and inside rearview mirror mounting brackets. Glass is also encapsulated, i.e., the glass is framed with a plastic material. The addition of attachments and the encapsulation may be done by the glass producer, although there are a number of companies that specialize in these procedures. When the glass is channeled through encapsulators, ***. General Motors purchases *** percent of its glass directly from glass encapsulators. [44] Donnelly Corporation, Excel Industries, Harvard Industries, Keeler Brass, Siegel Robert, and Scheller Globe are glass encapsulators.

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[37] Submission by Ford Glass Division, Feb. 8, 1990.

[38] ***.

[39] ***.

[40] ***.

[41] Conversation with ***, Feb. 20, 1990.

[42] Conversation with ***, Feb. 20, 1990.

[43] Conversation with ***, Feb. 20, 1990.

[44] Conversation with ***, Mar. 1, 1990.

Aftermarket

The aftermarket consists of sales by producers to distributors and sales by distributors to other distributors and to glass installers. With the exception of one company, distributors and installers reported purchasing glass on a daily and weekly basis. [45] PPG, Safelite, Guardian, Ford, and LOF were all named as price leaders. Most aftermarket purchasers reported that prices changed annually.

With the exception of purchases made from Chrysler, prices paid by distributors to producers are negotiated on the basis of individual producer truckload pricing schedules. [46] Prices charged by distributors are based on NAGS Calculator prices, [47] published by National Auto Glass Specifications (NAGS), Inc. These two levels are discussed separately below.

Producer prices.--Producer truckload pricing schedules [48] are used as a base from which producers and distributors negotiate real prices through the use of competitive discounts. Competitive discounts vary according to the negotiating power of each distributor. Chrysler is the only automobile glass producer that does not publish a truckload pricing schedule. Instead, it publishes list prices from which it offers quantity discounts. These prices and discounts are the same to all purchasers and are not negotiable.

In August 1989, PPG increased its schedule of truckload prices of domestic and imported laminated glass (windshields) by 8 percent, domestic tempered glass by 8 percent, and foreign tempered glass by 10 percent. [49] LOF and Ford followed suit with the same increases. [50] [51]

The prices that producers are able to charge in the market are directly related to the "fill rate," i.e., the percentage of a total order that a distributor expects to be actually filled by a producer. [52] Fill rates are important because automotive glass parts that are not supplied by a producer can only be obtained at a substantially higher price from another distributor.

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[45] One company reported purchasing on a monthly basis only.

[46] ***.

[47] ***.

[48] Until 1989, there were less than truckload (LTL) pricing schedules, listing prices to be charged for parts if less than a full truckload was ordered.

[49] PPG keeps an inventory of imported automotive glass to supply to the aftermarket.

[50] ***.

[51] ***.

[52] Producers may not have enough inventory on hand to supply all of their customers' requirements.

A distributor buying parts from another distributor will pay 60 to 70 percent more than buying parts from a producer at a truckload price. [53] Purchasers reported that in general PPG has the highest "fill rate," followed by Ford and LOF.

Producer prices are also directly related to the range of automobile glass that a producer can supply. PPG maintains the largest inventory of automotive glass. The company stocks Ford and Guardian automotive glass as well as glass from Japan [54] and is also more likely to carry automotive glass for older car models. LOF maintains the second largest inventory of automotive glass, although they produce a wider range of automotive glass than PPG. Ford is considered to have the third best mix of automobile glass parts, maintaining an inventory of all Ford parts as well as windshields for non-Ford automobiles. [55] Purchasers noted however, that during periods of strong automobile sales, Ford may limit its sales to unrelated purchasers in the aftermarket. Chrysler produces strictly Chrysler parts.

The price of glass is also related to the quality of the product. Although all glass sold must meet government safety specifications, glass manufacturers that sell to the OEM market are often reputed to produce a better quality product than companies that produce solely for the aftermarket.

According to purchasers, PPG is able to command the highest prices, followed first by LOF and Ford and second by Guardian. [56] Guardian has confirmed that its prices are in general slightly below those of these companies. [57] The lowest prices in the industry are for windshields fabricated by Safelite, which some industry sources claim to be of inferior quality. [58] According to many purchasers, Safelite is putting downward pressure on the prices of automotive glass sold in the aftermarket. [59]

* * * * * * *

Distributor prices.--The prices charged by distributors to other distributors or to glass replacers are determined by using a NAGS Calculator price as a benchmark and taking a competitive discount percentage against this

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[53] Conversation with ***, Feb. 6, 1990.

[54] Conversation with ***, Feb. 5, 1990.

[55] ***.

[56] Although principally producers for the OEM market, PPG, LOF, and Ford sell to the aftermarket. Guardian sells some pieces to the OEM market but produces mainly for the aftermarket.

[57] ***.

[58] Problems specifically mentioned include windshields that may be out of bend or have incorrect tinting. Conversations with ***.

[59] ***.

price. The size of a competitive discount off the NAGS price varies according to the volume of the purchase, the proximity of other suppliers, and the part of the country in which the transaction occurs. Discounts tend to be higher in large metropolitan areas, particularly in Texas, Michigan, New York, California, Florida, and the northeast in general. [60]

NAGS Calculator prices are computed by National Auto Glass Specifications, Inc., as a percentage markup of producer truckload prices. [61] [62] If two companies produce the same automotive glass piece at different prices, the higher of the two truckload prices is usually used to calculate the NAGS price, although prices are sometimes averaged. In most cases, National Auto Glass Specifications, Inc. discontinues listing parts after 10 years. In such cases, the industry uses multipliers to arrive at a NAGS price-equivalent when one is not available.

Over the years, NAGS prices for windshields had become overinflated; [63] list prices for windshields had been raised every year, but discounts were increased at the same time. In 1989, PPG's distributor and installer outlets reduced list prices of domestic and foreign windshields by 33 percent, but PPG adjusted discounts so that wholesale and retail prices would be increased by 8 percent. National Auto Glass Specifications, Inc. followed suit by lowering NAGS Calculator windshield prices by 33 percent, while reducing discounts by enough to insure an 8-percent increase in prices. According to National Auto Glass Specifications, Inc., the discounts offered for windshields have increased somewhat over the past few months for competitive reasons. [64]

Questionnaire price data

The Commission requested pricing data for both bid and spot-market sales from January 1987 through December 1989 from 10 producers, 8 importers, and 32 purchasers. For the OEM market, producers and importers were asked to report the prices of glass for the three largest bids they submitted, and purchasers were asked to report the three largest bids requested in each year. The largest sale information was requested for transactions in the aftermarket. Nineteen purchaser questionnaires, five producer questionnaires, and three importer questionnaires were returned, although not all companies reported price information.

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[60] ***.

[61] The NAGS Calculator price of a windshield for a domestic automobile manufactured by a domestic company is approximately 5 times the truckload price. The NAGS Calculator price of a windshield for a foreign automobile manufactured by a domestic company is approximately 3.33 times the truckload price. ***.

[62] NAGS prices were determined as a percentage markup on producers' less-than-truckload (LTL) prices until 1989, when this pricing schedule was dropped.

[63] List prices had become so high that glass parts were being purchased at 90 percent off list, sold to wholesalers at 80 percent off list, and sold to retailers at 50 percent off list. ***.

[64] Conversation with ***, Feb. 22, 1990.

OEM prices.--Chrysler, Ford, GM, Honda, Nissan, and Toyota provided purchaser information (tables 35-37); Ford, HGP, LOF, and PPG provided producer information (tables 38-42).[65] ***.

Table 35
Fabricated automotive glass: Bids received by purchasers for tempered glass, 1987-89

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Table 36
Fabricated automotive glass: Bids received by purchasers for laminated glass, 1987-89

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Table 37
Fabricated automotive glass: Bids received by purchasers on a platform basis, 1987-89

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Table 38
Fabricated automotive glass: Bids submitted by producers for tempered glass, 1987-89

* * * * * * *

Table 39
Fabricated automotive glass: Bids submitted by producers for laminated glass, 1987-89

* * * * * * *

Table 40
Fabricated automotive glass: Bids submitted by producers on a platform basis, 1987-89

* * * * * * *

[65] ***.

Table 41
Fabricated automotive glass: Bids submitted by importer to supply laminated and tempered glass, 1987-89

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Table 42
Fabricated automotive glass: Bids received by purchasers for laminated and tempered glass for automobile assembly in Canada, 1987-89

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Aftermarket prices.--Questionnaires were sent to producers, importers, and purchasers requesting pricing information for the largest sale or purchase made in each quarter. Limited information was received on this basis and trends in prices and comparisons of prices in the aftermarket were not possible. [66] Trends in prices were not available because the product with the largest sale or purchase volume changed from quarter to quarter, making it impossible to compile a consistent price series. Price comparisons were not possible because price data were not received for comparable products of the thousands of parts bought and sold in the aftermarket. Staff then requested a number of producers and purchasers to choose their largest customer or supplier and provide prices of any glass product sold or purchased in large quantities. Only two purchasers and one producer reported pricing data on this basis in their questionnaires. These data represent an extremely small amount of the total automotive glass products traded in the aftermarket and are not presented.

Transportation

Fabricated automotive glass is shipped by truck. The minimum quantity aftermarket purchase required by U.S. producers was generally reported to be 600 or 700 windshields; the minimum aftermarket purchase required of the Mexican product was reported to be 900 windshields by one purchaser and 1,000 by another. The average lead time for delivery of U.S.-produced glass reported by aftermarket purchasers ranged from 1 to 3 weeks; lead times for delivery of the Mexican product were reported to be 2 to 4 months. All but one aftermarket purchaser reported that transportation costs were not a major factor in purchasing decisions.

Competition between PPG and Mexican products

At the hearing, PPG was requested to develop additional data to show that PPG faces direct competition from the Mexican product in the aftermarket. PPG was able to provide the names and locations of *** aftermarket purchasers as examples of customers that had been offered Mexican glass at prices below PPG's. [67] Staff was able to contact *** of these companies. [68]

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[66] A discussion of competition in the aftermarket appears in the section on competition between the PPG and Mexican products.

[67] Stewart and Stewart, Posthearing Brief for PPG, pp. 16-17.

[68] ***.

Purchasers' evaluations of the domestic and imported products.--A number of purchasers noted that imports from L-N Safety Glass, not subject to the CVD order, had been inferior to the U.S.-produced product. According to ***, they experienced problems with the glass purchased from L-N Safety Glass through LOF. [69] *** also stated that they had some problems with some glass from L-N Safety Glass. [70] However, *** said that L-N Safety Glass' product was now "acceptable." [71] He stated that he recently sold some to a customer who could not believe it was an L-N product because the quality was so good. *** also said that the quality of the glass from L-N was now "good." He said that the company had troubles about three years ago but had corrected its problems through retooling. [72] *** noted in its questionnaire that Mexican glass purchased from LOF was inferior to the U.S.-produced product in 1988, but that the quality improved in 1989.

According to ***, which purchased glass from CRINAMEX prior to 1986, CRINAMEX's laminated glass (which is subject to the CVD order) is comparable in quality to U.S.-produced glass. Tempered parts were generally comparable except in a few instances when the quality was definitely inferior. Although at one point CRINAMEX's prices were 18 percent lower than prices for comparable domestic products, laminated glass is currently available for approximately 5 percent less and tempered glass from 8 to 10 percent less. These price differentials are not considered large enough to warrant the purchase of the CRINAMEX product for several reasons. First, consumers in the mid-west, where *** are located, prefer U.S.-produced glass. In addition, there were some difficulties in dealing with the Mexicans, including infrequent personal visits, a language barrier, and difficulty in returning defective units. [73]

*** has also purchased CRINAMEX's glass and describes it as comparable to the U.S.-produced product. The company noted that the domestic product had been purchased even though the Mexican product was available at a lower price because it took longer to fill an order for Mexican glass and because the supply from Mexico was less reliable. Since 1986 the company's purchases of Mexican tempered glass had decreased relative to domestic purchases and purchases of Mexican laminated glass had remained about the same.

Only one purchaser commented on Vitro Flex's product marketed directly by Ford. [74] *** stated that the Vitro Flex glass imported by Ford has been good so far. [75]

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[69] Conversation on Feb. 7, 1990.

[70] Conversation on Feb. 12, 1990.

[71] Conversation on Feb. 12, 1990.

[72] Conversation on Feb. 7, 1990.

[73] Conversation with ***, Feb. 5, 1990.

[74] Glass produced by Vitro Flex.

[75] Conversation on Feb. 7, 1990.

Exchange rates

Quarterly data reported by the International Monetary Fund indicate that during the period January 1987 through December 1989 the value of the Mexican peso depreciated sharply by 60.5 percent against the U.S. dollar (table 43). Adjusted for movements in producer price indexes in the United States and Mexico, the real value of the Mexican currency appreciated 31.4 percent between January-March 1987 and the fourth quarter of 1989.

Table 43
Exchange rates: 1/ Nominal and real exchange rates of the Mexican peso and producer price indexes in the United States and Mexico, 2/ by quarters, January 1987-December 1989

Period	U.S. producer price index	Mexican producer price index	Nominal exchange-rate index	Real exchange-rate index 3/
1987:				
January-March.....	100.0	100.0	100.0	100.0
April-June.....	101.6	129.1	82.6	104.9
July-September.....	102.8	165.3	70.2	112.9
October-December....	103.2	206.3	57.5	114.9
1988:				
January-March.....	103.8	287.8	45.6	126.4
April-June.....	105.6	310.4	45.0	132.1
July-September.....	107.1	322.0	45.0	135.3
October-December....	107.6	328.1	45.0	137.2
1989:				
January-March.....	109.9	346.1	44.1	138.9
April-June.....	111.8	357.4	42.5	135.8
July-September.....	111.3	365.7	40.9	134.4
October-December....	111.7	4/ 372.1	39.5	4/ 131.4

1/ Exchange rates expressed in U.S. dollars per Mexican peso.

2/ Producer price indexes--intended to measure final product prices--are based on average quarterly indexes presented in line 63 of the International Financial Statistics.

3/ The real exchange rate represents the nominal rate adjusted for relative movements in producer prices in the United States and Mexico. Producer prices in the United States increased 11.7 percent between January 1987 and December 1989 compared to a 272.1-percent increase in Mexican prices during the same period.

4/ Based on Mexican producer price data for October only.

Note.--January-March 1987=100.

Source: International Monetary Fund, International Financial Statistics, February 1990.

CHAPTER 4: THE EFFECT ON THE U.S. FABRICATED AUTOMOTIVE GLASS INDUSTRY OF REVOCATION OF THE OUTSTANDING COUNTERVAILING DUTY ORDER ON FABRICATED AUTOMOTIVE GLASS FROM MEXICO

USTR's letter requested the Commission to investigate and report on "the conditions of competition between U.S. and Mexican fabricated automotive glass in the United States market, specifically whether (1) an industry in the United States would be materially injured, or would be threatened with material injury, or (2) the establishment of an industry in the United States would be materially retarded if the outstanding countervailing duty order on fabricated automotive glass from Mexico (50 F.R. 1906) were revoked by the Department of Commerce." USTR requested the Commission to inquire into the volume of subject imports, their effect on U.S. prices for like products, and their impact on domestic producers of like products.

As explained below, Chairman Brunsdale, Vice Chairman Cass, and Commissioner Newquist find that an industry in the United States would not be materially injured or threatened with material injury, nor would the establishment of an industry in the United States be materially retarded, if the outstanding countervailing duty (CVD) order on fabricated automotive glass from Mexico were revoked. Commissioner Eckes finds that an industry in the United States would be materially injured if the CVD order on fabricated automotive glass from Mexico were revoked. Commissioner Lodwick finds that an industry in the United States would be threatened with material injury if the CVD order on fabricated automotive glass from Mexico were revoked. [76]

[76] Commissioner Rohr did not participate in this investigation.

VIEWS OF
CHAIRMAN ANNE E. BRUNSDALE
AND VICE CHAIRMAN RONALD A. CASS

Conditions of Competition Between U.S. and Mexican Fabricated Automotive Glass in the United States Market
Inv. No. 332-286

The information gathered by the Commission in this investigation indicates that no domestic industry would be materially injured or threatened with material injury[1] if the existing countervailing duty ("CVD") order against most producers of Mexican automotive glass were revoked.[2] Currently, no duties are being levied on Mexican automotive glass because the Department of Commerce ("Commerce") has found that no subsidies are being received by Mexican producers. We seriously doubt that subsidies would be resumed if the CVD order were revoked. If the subsidies were resumed, we believe they would be at levels considerably below those that Commerce found existed in 1983, the period of investigation for their original investigation of subsidies of Mexican automotive glass. Finally, even if subsidies were resumed at the level found at that time, the effect on the U.S. industry would be far below any reasonable definition of material injury.

In investigating whether revocation of the order would result in a U.S. industry being materially injured or threatened with material injury, we have, as directed by the U.S. Trade Representative, inquired into "(i) the volume of imports of the merchandise that is the subject of investigation, (ii) the effect of imports of the merchandise on prices in the United States for like products and (iii) the impact of such imports on domestic producers of like products."[3]

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[1] Material retardation is not an issue in this investigation as the industry producing automotive glass in the United States is well established.

[2] The existing order does not apply to glass manufactured and exported by L-N Safety Glass. (Supra at 2)

[3] Letter to The Honorable Anne E. Brunsdale, Chairman, U.S. International Trade Commission, from United States Trade Representative Carla A. Hills, dated December 19, 1989. (Reproduced at A-4 - A-6, infra.)

Like Product and the Domestic Industry

In order to analyze the effect of revoking the outstanding CVD order covering Mexican automotive glass, it is necessary to determine what domestic industry or industries would be most affected by such an action. In the terms used by the Commission in Title VII investigations, the domestic industry for purposes of the investigation is that industry which produces "a product which is like, or in the absence of like, most similar in characteristics and uses with," the imports under scrutiny.[4] Commerce has defined the imports subject to the CVD order as "'fabricated automotive glass,' specifically, laminated automotive glass . . . and tempered automotive glass. . . ."[5]

In defining the like product and the related domestic industry, we are attempting to determine what domestic industry or industries would be most affected by any subsidized imports of automotive glass from Mexico. If the price of tempered automotive glass imported from Mexico were unfairly low due to subsidies, U.S. producers of what product or products would be most directly affected? Similarly, who would be most affected by an unfairly low price for laminated automotive glass from Mexico?

Our analysis of these issues leads us to conclude that tempered and laminated automotive glass should be defined as separate like products and the producers manufacturing them as constituting separate domestic industries. While both tempered and laminated glass are used in windows for automobiles, they generally are used for different windows. Laminated glass is generally used only in windshields. In contrast, the vast majority of side and rear windows are made of tempered glass.[6]

There appear to be two reasons for this preference for the type of glass used to manufacture the different types of windows. First, federal law mandates the use of laminated glass in

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

[5] 50 Federal Register 1907 (January 14, 1985) (citations to the Tariff Schedule of the United States are omitted.)

[6] While virtually all side and rear windows are currently being made from tempered glass, there is apparently some slight tendency toward increased use of laminated glass for these windows -- particularly in rear windows and moon roofs. However, the use of laminated glass for these purposes at the present time has been described as "very minimal." (Hearing Transcript at 53, Testimony of Mr. Reichenbach of PPG.)

windshields.[7] Second, laminated glass is substantially more expensive to manufacture than tempered glass. The production of laminated glass involves an additional ingredient -- a thin layer of clear or tinted plastic between two layers of glass. In addition, because two layers of float glass are used, laminated glass requires greater amounts of float glass than production of tempered glass, which is produced by reheating a single layer of float glass and then cooling the surfaces quickly by means of air jets.[8] (In terms of the factors traditionally used by the Commission in making like product determinations, this discussion demonstrates differences in price and lack of interchangeability, as well as differences in physical characteristics and uses and differences in manufacturing process.[9])

Because laminated glass must be used in windshields and windshields currently account for almost all of the use of this type of glass, U.S. producers of laminated glass would not be injured if tempered glass imported from Mexico were sold at unfairly low prices. Purchasers of laminated glass could not substitute tempered glass for laminated in response to the decline in the price of tempered glass. While the case is somewhat less clear in the opposite direction, it seems to us unlikely that even a fairly large decline in the price of imported laminated glass would cause laminated glass to replace significant amounts of tempered glass. Certainly, data collected by the Commission during this investigation show that the per-square-foot price of laminated automotive glass exceeded the price of tempered glass by much more than any level of subsidy the Mexican government has been found to have provided to its automotive glass producers.[10]

We therefore conclude that there are two like products for purposes of this investigation: tempered automotive glass and laminated automotive glass. There are likewise two domestic

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[7] Supra at 4.

[8] Id.

[9] In addition, we note that there are differences in the channels used in distributing the two types of glass in that very little tempered glass is sold for replacement use. While at least 40 percent of laminated glass is sold for use in replacing broken glass in existing vehicles, less than 10 percent of tempered glass is sold for replacement use. (Supra at 7, n. 15)

[10] See supra at 14, Table 7, and 15, Table 8.

industries: those firms that produce tempered automotive glass and those that produce laminated automotive glass.[11]

The Level of Subsidization

Having defined the domestic industries that would be most affected by revocation of the existing CVD order, the next question that must be answered is what level of countervailable subsidies the Mexican government would provide to producers of automotive glass if the order were revoked. In our view, it is unlikely that any countervailable subsidies would be offered. If there were any, it appears almost certain that they would be small -- certainly no greater than the 4.68 percent level the Department of Commerce found existed during 1983.[12]

Our conclusion that any subsidy level would probably be zero is based on the history of Mexican subsidization of this industry since the initial investigation was completed in early 1985. While a deposit rate of 4.68 percent was established at the time the investigation was completed, administrative reviews have found de minimis or zero levels of benefits for 1985 and 1986. These findings have applied to both tempered and laminated automotive glass. In a review completed in December 1986, Commerce found that benefits during the last two months of 1984 had amounted to 2.45 percent and benefits during 1985 had amounted to 0.17 percent, a level that Commerce considers to be de minimis.[13] The most recent review, which covered the year 1986, found that no benefits had been received by Mexican

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[11] We are aware that Ford Motor Company, one of the domestic producers of both laminated and tempered automotive glass, is also partial owner of and an importer of glass produced by Mexican firms found to have received subsidies in the past. This raises the possibility that Ford should be excluded from the domestic industry as a producer "related to the exporters or importers" under Section 774(4)(B) of the Tariff Act of 1930 (19 U.S.C. 1677(4)(B)). However, we find that Ford should not be excluded from the domestic industry both because its imports were only a small percentage of its total automotive glass operations and because it produces a sufficiently large part of the total domestic output of tempered and laminated automotive glass that exclusion of data for Ford would distort, if not completely disrupt, our analysis.

[12] See 50 Federal Register 1906 (January 14, 1985).

[13] 51 Federal Register 44652 (December 11, 1986).

producers.[14] As a result of the finding of de minimis or zero benefit levels, the collection of deposits has been waived for importations since December of 1986.

Our belief that subsidies would not be resumed is further strengthened by the fact that in recent years the government of Mexico has undertaken a substantial program of trade liberalization.[15] In 1985, Mexico negotiated the U.S.-Mexican Understanding on Subsidies and Countervailing Duties. Under this agreement, Mexico agreed to eliminate many of their subsidy programs and to reduce the subsidy element contained in others. Mexico became a member of the General Agreement on Tariffs and Trade (GATT) in 1986. When it became a member of the GATT, Mexico announced its intention to become a signatory to the GATT Subsidies Code.[16]

More specifically, Mexico has made changes to the two programs that led to the initial countervailing duty order on automotive glass: the Fund for the Promotion of Exports of Mexican Manufactured Products (FOMEX) and Certificates of Fiscal Promotion (CEPROFI).[17] The CEPROFI program, which was found to provide average benefits of 1.10 percent,[18] was ended January 1, 1990.[19] While the FOMEX program, which provides preferential financing rates for exports, continues to exist, the interest rate firms must pay for financing under this program has been increased in compliance with the 1985 U.S.-Mexican agreement.[20] The level of subsidy provided by FOMEX financing would certainly

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[14] 54 Federal Register 51908 (December 19, 1989).

[15] Material in this paragraph is drawn from USITC, Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexican Relations; Phase I: Recent Trade and Investment Reforms Undertaken by Mexico and Implications for the United States, USITC Pub. 2275, April 1990.

[16] Mexico has not yet signed the GATT Subsidies Code. However, Mexico claims that it maintains no export subsidies that are inconsistent with the GATT. (Id. at 2-3)

[17] Supra at 2.

[18] Supra at 3.

[19] Review of Trade and Investment Liberalization Measures by Mexico at 4-21. (See also supra at 3, n. 7.)

[20] Id. at 4-19.

be below the 3.58 percent level found by DOC in 1983.[21] Thus, if subsidies were resumed following the revocation of the existing CVD order, they almost certainly would be at levels considerably lower than the 4.68 percent rate observed in 1983.

Effect of the Any Subsidies on U.S. Producers

While we believe it unlikely that subsidies to Mexican producers of either tempered or laminated automotive glass would resume, we cannot completely rule out the possibility that there will be some such subsidies, though at a very low rate.[22] We therefore turn to the task of evaluating the effect such subsidies would have on the domestic industries producing tempered and laminated automotive glass, if they were to occur. We find that neither the industry producing tempered automotive glass nor the industry producing laminated glass would suffer material injury even if subsidization were to recur at the rate Commerce found existed in 1983.

In evaluating how any subsidy would affect the domestic industry, we consider, in particular, how the quantity of glass produced by domestic firms and the price they receive for their products would change if subsidization were to recur. Subsidization of a foreign competitor will affect the price and quantity received by domestic producers if it makes it profitable for the foreign firm to reduce the price it charges.[23] We know from basic economic principles that any reduction in the price of imports will tend to reduce demand for the competing domestic

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[21] Supra at 3.

[22] For purposes of our analysis in this investigation, we assume that production of tempered and laminated glass would be subsidized to the same degree. The existing CVD order applies to both tempered and laminated glass and the duties have always been the same for both types of glass. In addition, there is no information to justify an assumption that the duties on one type of glass would differ from that on the other.

[23] In order to avoid biasing our analysis against the likelihood of finding material injury, we will assume that if subsidies amounting to 4.68 percent were reestablished, this would lower the price of Mexican automotive glass by 4.68 percent. This need not be true, as some subsidies that are countervailable under U.S. law may have their effect on the fixed costs of production rather than on variable costs. It is only changes in variable, or marginal, costs that will lead to changes in price in the short run.

product. We must determine, however, how large any such reduction in price or quantity would be. Would it be great enough to constitute "material injury"?

Subsidization of a foreign competitor can also affect various other aspects of an industry's performance, such as employment, investment, and capacity utilization. However, any effect on these other indicators is likely to follow from the effect on industry price and output. For example, if production by the domestic industry declines, employment is likely to decline. Investment levels depend on the expected future profitability of an industry. Therefore, if subsidies to a foreign competitor reduce either the volume of sales made by the domestic industry or the price the domestic producers receive and if these reductions are expected to continue into the future, this may lead to reductions in investment. Finally, reductions in the volume of production will clearly reduce levels of capacity utilization.

Import Penetration. One factor that strongly suggests the limited effect any subsidization is likely to have on domestic producers of tempered and laminated automotive glass is the small share of the market occupied by Mexican firms that are subject to the CVD order. The larger the share of unfairly traded imports in the U.S. market, the greater will be the effect any change in the price of these imports will have on the demand for the offerings of other producers -- including both domestic producers and producers in other countries who export to the U.S. Thus, it is more likely that domestic producers have been materially injured when the penetration level of the unfairly traded imports is high.

During the period of investigation, imports of tempered glass from Mexico ranged from a high of 4.7 percent of the total quantity of tempered automotive glass consumed in the U.S. in 1987 to a low of 4.2 percent of total U.S. consumption in 1989.[24] In value terms, Mexican imports ranged from 4.8 percent of consumption in 1987 to 3.1 percent in 1989.[25] Imports of laminated glass accounted for a slightly higher percentage of total consumption, ranging from 7.9 to 8.6 percent in quantity

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[24] Supra at 38, Table 33.

[25] Data on the value of imports from Mexico and total imports are found Supra at p. 34, Table 29, while the value of domestic shipments are found at p. 14.

terms and from 8.4 to 8.6 percent in value terms during the period of investigation.[26]

Not only are these import penetration figures not very large, but they overstate the penetration of the imports subject to the order. In its initial investigation, Commerce found that one of the major Mexican producers of automotive glass -- L-N Safety Glass -- had not received any subsidies. Therefore, imports from this firm have never been subject to the CVD order.[27] Imports from Mexican firms other than L-N Safety Glass amounted to [*** to ***] percent of the total quantity of tempered glass consumed in the U.S. during the period of investigation and between [*** and ***] percent of the total value of tempered glass consumed. Penetration levels for unfair Mexican imports of laminated glass were between [*** and ***] percent in quantity terms and between [*** and ***] percent in value terms.[28]

Substitutability between Domestic and Imported Glass. In spite of low levels of subsidization and low import penetration, material injury could still result if imported automotive glass were such a good substitute for that produced by domestic firms that a small reduction in price would cause a large portion of the sales currently going to domestic firms to be shifted to the firms benefiting from subsidies. We therefore need to consider the substitutability between domestic glass and that imported from Mexico.

Our analysis leads us to conclude that Mexican and domestic automotive glass are only moderately good substitutes. This is true for both tempered and laminated glass. There appears to be a general consensus among purchasers that there are no significant quality differences between the Mexican and domestic products. Indeed, all fabricated auto glass sold in this country

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[26] Quantity data are reported Supra at p. 39, Table 34. Data on the value of imports from Mexico and total imports are found Supra at p. 36, Table 30, while the value of domestic shipments are found at p. 14.

[27] Supra at 2. See also 50 Federal Register 1906 (January 14, 1985).

[28] We cannot publicly report these figures because of the confidentiality of the data on imports from L-N Safety Glass. Data on imports from L-N Safety Glass appear Supra at 36, Table 31.

must meet standards established by the U.S. Department of Transportation.[29]

However, particularly in the replacement glass portion of the market,[30] there may be a preference for domestic glass, particularly in some parts of the country. Further, there is some evidence that the supply of glass from Mexico may be less reliable than that from domestic sources; and it may take longer to fill an order for glass from Mexico. There may also be problems with returning defective pieces of glass; there can be language problems in dealing with the Mexican firms; and there are less frequent personal visits between Mexican firms and their customers.[31]

Substitutability in the original equipment manufacturer (OEM) portion of the market is limited, particularly in the short to intermediate time frame, by the practices of the OEMs -- i.e., by automobile manufacturers. For one thing, OEMs will shift their demand for glass from one supplier to another only gradually. Once an OEM has selected a supplier for a piece of glass for a particular body type, they are likely to continue to purchase that glass from the same supplier as long as that vehicle type is being manufactured.[32] Therefore, the purchase arrangements are likely to remain in force for several years.

Second, whether a firm is in the best position to compete for a particular contract is often determined several years before production on a particular type of vehicle begins. Designers and engineers employed by the automaker are likely to work with suppliers for at least a year before bids are solicited. In addition, actual bids are made a year or more before production begins.[33]

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[29] Memorandum to the Commission entitled "Economic Memorandum, Investigation No. 332-286 (Final): Fabricated Automotive Glass from Mexico," May 10, 1990 (INV-N-041) at 17-19 (Economic Memorandum).

[30] Replacement sales account for about 40 percent of total purchases of laminated automotive glass, but less than 10 percent of tempered glass purchases. (Supra at 7, n.15)

[31] Id. at 19.

[32] Supra at 40.

[33] Supra at 40-41.

Finally, there are indications that automakers may be increasing their association with particular glass makers. Rather than holding competitive bidding to supply their glass needs, an automaker may negotiate with a single glass producer and consider purchasing from other firms only if a satisfactory price cannot be reached in the negotiations with its normal supplier.[34]

On the basis of the above information, we conclude that there is a moderate degree of substitutability between automotive glass produced by different firms, including Mexican and domestic firms. This is true of both the substitutability between domestic and Mexican tempered glass and between domestic and Mexican laminated glass. Given the moderate degree of substitutability, a small reduction in the price of Mexican imports will have a small, and probably negligible, effect on the demand for domestic laminated or tempered automotive glass.[35]

Responsiveness of Aggregate Demand to Changes in Price. Another factor that will influence the amount of injury resulting from subsidized imports is the responsiveness of the aggregate demand for that product to a change in price. If demand is highly sensitive to price, a lower price resulting from subsidies will generate a large increase in total sales of the product, accounting for a considerable part of the increased sales of the

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[34] Supra at 41.

[35] The degree of substitutability between products of different producers can be quantified by the elasticity of substitution, which is the percentage change in the relative quantities of two goods resulting from a 1 percent change in their relative prices. A large value of the elasticity of substitution indicates that products are good substitutes while a small value indicates the obverse, meaning that purchasers are less likely to change their purchasing patterns in response to a change in relative prices. We would place the elasticity of substitution between domestic and Mexican automotive glass -- both laminated and tempered -- in the range of 3 to 5 for both OEM and replacement purchases. This is lower than the elasticity suggested by the staff of the Commission's Applied Economics Division for OEM purchases, which suggested a value greater than 5 for OEMs and between 3 and 5 for replacement purchases. (Economics Memorandum at 17) In concluding that the elasticity for OEM purchasers is greater than 5, staff does not appear to consider that suppliers are not changed once production of a vehicle type is begun nor do they consider the lead time between when OEMs begin working with glass suppliers and the beginning of production.

subject imports. This, however, would not occur in the case of automotive glass: As discussed below, a reduction in the price of either tempered or laminated automotive glass would result in very little increase in the quantity of glass sold.[36] However, given the other evidence suggesting that subsidization would have little effect on prices of the subject imports (or concomitantly on prices of the domestic like products), this issue is of little direct moment in this case.

Demand by new car manufacturers for both tempered and laminated automotive glass appears to be largely unresponsive to changes in price. Glass accounts for far less than 5 percent of the cost of a new automobile and the elasticity of demand for new automobiles has been estimated to be slightly greater than 1.[37] Thus, the OEM demand for the two types of glass would respond very little to a change in the price of glass.

Similarly, the price responsiveness of glass purchases for replacement purposes is also likely to be very low. A vehicle with a broken window, particularly a broken windshield, is unlikely to be considered serviceable. In states requiring periodic safety inspections, such vehicles are unlikely to pass the inspection requirements. Further, the cost of replacing the window or windshield is small relative to the cost of replacing the entire vehicle. As a result, almost all broken glass will be replaced and the replacement decision will not be substantially affected by the price of the glass.[38]

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[36] The economic concept used in measuring this responsiveness is the elasticity of aggregate demand -- the percentage change in the quantity of a product sold resulting from a 1 percent change in the average price of the product. The higher this elasticity, the more responsive demand is to a change in price. The Applied Economics Division suggests that the aggregate elasticity of demand for automotive glass is likely to be less than -0.1. (Economics Memorandum at 19.) We agree with that assessment and believe it applies to both tempered and laminated glass.

[37] Economics Memorandum at 19-20.

[38] The responsiveness of total demand to a change in price will be a combination of the responsiveness in the OEM and replacement markets. The relative importance of the price responsiveness in the two sectors in determining overall responsiveness will depend on the percentage of sales coming from each sector. Thus, the low price responsiveness in aftermarket sales is more important in assessing the elasticity of demand for laminated glass than for tempered, since most sales of replacement glass involve

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Responsiveness of Domestic Supply to Changes in Price. The responsiveness of domestic supply to a change in price will determine how much the price received by domestic producers will decline as a result of subsidized imports. If domestic supply is highly responsive -- that is, if a slight decline in price will cause domestic firms to decrease the quantity they produce by a relatively large amount -- the effect of any subsidy is likely to be found primarily in decreased quantities sold by the domestic firms. On the other hand, if a price decrease results in only a small decrease in domestic production, the subsidy may result in a smaller effect on the quantity produced by the domestic industry and a bigger effect on the price of the domestic good.

Several factors appear to limit the degree to which the quantity of glass produced would decrease in response to a decline in the price of domestic glass.[39] First, facilities used to produce fabricated automotive glass cannot be economically converted to produce other products.[40] Therefore, as long as prices are high enough to cover the variable costs of production, these facilities will continue to be used to produce automotive glass.

Second, if firms are able to expand export markets for their products when domestic price declines, this will tend to increase the elasticity of domestic supply. However, in the case of automotive glass this approach appears to hold only limited promise. Exports accounted for only 10.2 percent of U.S. production of tempered automotive glass in 1989 and only 9.7

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[38](...continued)
laminated glass. (Supra at 7, n. 15) However, since we find that both OEM and replacement demands are highly inelastic, this does not lead us to arrive at different values for the two types of glass.

[39] In the current investigation, we are primarily interested in the effects of a price decline resulting from the reintroduction of Mexican subsidies. Thus, data on excess capacity is less informative than in cases where we are considering the ability of the domestic industry to expand production if demand for their products increased in response to a higher price of imports because dumping or subsidies were eliminated or counteracted by duties.

[40] Economics Memorandum at 8.

percent of laminated glass production.[41] Furthermore, in excess of 80 percent of these exports go to Canada.[42] Given the fairly integrated nature of U.S. and Canadian auto markets that has resulted from the 1965 free trade agreement covering automobile parts for OEM consumption and the 1988 U.S.-Canada Free Trade Agreement, it is likely that the sale of subsidized Mexican automotive glass in the U.S. would also depress the Canadian market.[43] A more realistic way to gauge the potential to expand export markets might be to look at exports from the U.S. and Canada to third countries as a percentage of total production in those two countries. While we do not have the data to make such a calculation, we note that U.S. exports to third countries currently account for only 20 percent of U.S. exports or about 2 percent of domestic production. This suggests that it would take a very large increase in these exports to amount to a significant reduction in the amount of glass sold domestically.

Given these considerations, we conclude that domestic supply would only be moderately responsive to a change in price.[44,45]

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[41] See Supra at 12, Table 5, 13, Table 6, 16, Table 9, and 17, Table 10.

[42] Economics Memorandum at 10.

[43] The integrated nature of the U.S. and Canadian markets may further suggest that the import penetration levels discussed above still are still overstated. If the two markets are essentially integrated, it would be more realistic to measure import penetration by dividing the sum of the subject imports going to the two countries by total consumption in those countries.

[44] The price responsiveness of domestic supply is measured by the elasticity of domestic supply -- the percentage change in the quantity of domestic production resulting from a one percent change in the price of the domestic good. In numeric terms, we would place the elasticity of domestic supply between 2.0 to 4.0, the range suggested by the staff of the Applied Economics Division. (Economics Memorandum at 9)

[45] We note the argument of PPG Industries that if a float glass production line is operated at all it must operate 24 hours per day. (PPG Post-Hearing Statement at 8) While this fact may somewhat limit the responsiveness of automotive glass production to a decline in the price received, we do not believe this effect would be large. Float glass is not produced in the same plants as automotive glass. Indeed, float glass is manufactured by only

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The Likely Effect of Revoking the CVD Order. We do not believe that revocation of the existing CVD order on imports of tempered and laminated automotive glass from Mexico would cause material injury to the domestic industries producing these two products. Recent Mexican government policy and the lack of subsidy benefits in recent Commerce reviews suggest that it is very unlikely that any subsidies would be resumed. If subsidies were resumed, they would almost certainly be at very low levels; and there is no evidence to suggest that domestic producers of these products would be materially injured as a result of such small subsidies. In particular, the small percentage of total U.S. demand for these products that is supplied by firms subject to the existing CVD order and the limited substitutability between glass of different producers suggests that the effect of such small subsidies would not rise to the level of materiality.

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[45](...continued)
five firms in the U.S., and one of these firms does not make automotive glass. (Industrial Minerals, February 1990, at 40.) Therefore, there are four producers of automotive glass that purchase their float glass on the open market. If these firms chose to reduce their production of automotive glass, purchases of float glass could simply be reduced. If a firm that did produce float glass wished to reduce its production of automotive glass, it could divert float glass to the production of other glass products. If the firm chose to shut down a float glass production line in spite of the costs involved, it could obtain float glass for its other products either from its other float glass plants or from other producers. (There are a total of 35 float glass lines in the U.S., Id.)

Findings of Commissioner Don E. Newquist

These views are offered in response to a request of the United States Trade Representative (USTR), pursuant to section 332(g) of the Tariff Act of 1930, that the Commission conduct an investigation on the conditions of competition between U.S. and Mexican fabricated automotive glass in the United States market. Further, we have been asked to determine whether (1) an industry in the United States would be materially injured, or would be threatened with material injury, or (2) the establishment of an industry in the United States would be materially retarded, if the outstanding countervailing duty order on fabricated automotive glass from Mexico were revoked by the Department of Commerce.

After carefully examining the information developed in this investigation, I conclude that revoking the outstanding countervailing duty order would not significantly increase the volume, nor significantly reduce the prices, of imports of fabricated automotive glass from Mexico. In view of the past and present performance of the domestic fabricated automotive glass industry, and conditions of competition in both the United States and Mexico, I believe that removal of the countervailing duty order will not result in material injury or threat of material injury to the domestic industry.

Like product and domestic industry

In determining whether revocation of the CVD order on automotive glass would materially injure or threaten material injury to a domestic injury, it is first necessary to define the domestic industry at issue. Domestic industry is defined as "the domestic producers as a whole of a like product...."[1] "Like product," in turn, is defined as "a product which is like, or in the absence of like, most similar in characteristics and uses with" the articles subject to investigation.[2] The article subject to the outstanding CVD order is fabricated automotive glass, which includes laminated automotive glass and tempered automotive glass.[3]

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[1] 19 U.S.C. § 1677(4)(A).

[2] 19 U.S.C. § 1677(10).

[3] See, 50 Fed. Reg. 1906-7 (Jan. 14, 1985), Appendix D, infra, at A-12--A-13; 54 Fed. Reg. 54909 (Dec. 19, 1989).

The only like product issue that has arisen in this investigation is whether the Commission should treat laminated and tempered automotive glass as one or two like products. Although it is a close question, as explained below, I find that there is a single product -- fabricated automotive glass -- "like" the subject imports.

Both tempered and laminated automotive glass are made from float glass which is specially treated to increase strength, but still allow the passage of light.[4] To the average observer, there is no difference in physical appearance between laminated and tempered automotive glass, and both types can be manufactured in many sizes, shapes, and shades.

Both laminated and tempered automotive glass are used in the same vehicles: automobiles, most types of trucks and buses, and certain other vehicles. Moreover, both laminated and tempered automotive glass are sold through the same two distribution channels -- in the original equipment (OE) market (automobile manufacturers) and in the replacement market (automobile dealer service departments, independent repair shops, etc.) -- and often are sold together as part of a single bid. All U.S. producers make both types of automotive glass. Finally, although by law windshields must be made of laminated automotive glass, there is some functional interchangeability between the two types, as both tempered and, to a small but increasing extent, laminated automotive glass are installed in the non-windshield areas of vehicles.[5]

Certain factors -- such as their different production processes, differences in physical characteristics, cost differences, and the legal requirement that only laminated glass be used in front windshields -- may provide support for treating tempered and laminated automotive glass as separate like products.[6]

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[4] See, supra at 4-5.

[5] Tr. at 52-53. Price, rather than any legal or functional considerations, appears to explain the present preference for tempered glass for the side and rear windows of vehicles.

[6] Laminated glass, unlike tempered glass, contains a thin layer of plastic sandwiched between two outer layers of glass. This makes laminated glass more shatter-resistent and roughly 75 percent more costly to produce than tempered glass.

Nevertheless, based on the similarities noted above, I conclude that laminated and tempered automotive glass constitute a single like product. Accordingly, I find a single domestic industry composed of all domestic producers of fabricated automotive glass.[7]

Likely effect of revocation

Preliminarily, I note that predicting the likely economic impact of future events is never an exact science, and our task in this investigation is made more difficult by the fact that because Mexico did not accede to the General Agreement on Tariffs and Trade until 1986, the outstanding CVD order was imposed by Commerce without the benefit of an injury analysis by the Commission. Thus, there is little "benchmark" information in the record concerning either the condition of the domestic industry or the effect of subsidized Mexican imports on U.S. producers prior to the imposition of the order. Nevertheless, the data on current market conditions, Mexican production capacity and capacity utilization, and the changes in the Mexican Government's policies regarding export and other subsidies, provide a sufficient basis for concluding that revocation of the current order would have a minimal impact upon U.S. producers.

As a starting point in addressing the likely impact of subsidized Mexican imports following revocation of the current CVD order, it is appropriate to consider the current condition of the domestic industry. In my view, while its performance indicators have fluctuated over the past three years and now are somewhat mixed, the domestic industry is not presently suffering

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[7] In defining the domestic industry to include all domestic producers of laminated and tempered automotive glass, I decline the invitation to exclude Ford and Libbey-Owens-Ford (LOF) as domestic producers on the grounds that these companies have ownership interests in, and purchase imports manufactured by, Mexican producers. See Posthearing Submission of PPG Industries at 13-15; 19 U.S.C. § 1677(4)(B). The Mexican firm related to LOF was not found by the Commerce Department to have received actionable subsidies and its exports to the United States therefore are not covered by the outstanding order. While Ford is a part owner of, and imports from, Vitro Flex, the volume of those imports are fairly modest in relation to Ford's domestic production. Moreover, Ford's domestic production accounts for a significant percentage of total U.S. production of both laminated and tempered automotive glass, and excluding Ford would therefore distort the true picture of the domestic industry's production performance. Accordingly, I do not find appropriate circumstances for excluding either Ford or LOF from the domestic industry.

material injury. Shipments, production, capacity, employment, wages and average hourly compensation are at higher levels than in 1987. While operating income and operating income margins have declined, due largely to increases in the cost of goods sold, none of the six domestic producers responding to Commission questionnaires reported operating losses in either 1988 or 1989.

Total U.S. imports of fabricated automotive glass have increased substantially over the past three years, led primarily by increased shipments from Canada, Japan and the Republic of South Africa. Imports from Mexico, however, have remained fairly stable, and have actually declined as a percentage of domestic consumption, accounting in 1989 for 5.8 percent of total domestic consumption and *** percent of open market consumption. Further, Mexican imports have not been import price leaders, and the data do not show that Mexican imports have consistently undersold U.S. products in head-to-head competition for bids.

In my view, the evidence does not indicate that revocation of the outstanding CVD order will lead to a surge in countervailable Mexican imports. Three firms — Vitro Flex, CRINAMEX, and L-N Safety Glass -- account for the bulk of Mexican production and exports. For the period 1987 to 1989, Vitro Flex [* * *].

CRINAMEX' exports of tempered glass, which are produced by another company on a toll basis, [* * *].

The production capacity of L-N Safety Glass has[* * *]. More importantly, while L-N has consistently accounted for [* * *,] L-N has not been found to have benefitted from actionable subsidies, and its exports, therefore, are not covered by the CVD order.

In addition, while since 1987 Ford Motor Company has purchased (principally from its affiliated supplier, Vitro Flex) fully [***] of the imports covered by the order, I do not find that Ford is injured by its own purchase of these imports.

Further, Ford is likely -- under a long term contractual commitment -- to continue to purchase imports from Vitro regardless of whether the current order is lifted.[8] [9]

Finally, most of the remaining imports from Mexico are sold in the replacement market where, the evidence suggests, there is a preference for fabricated glass produced by original equipment (automobile) manufacturers. Room for expansion of Mexican imports into this market therefore appears to be limited.

Lifting the current order would not, in my view, significantly increase the volume of Mexican imports or reduce the prices at which they are likely to be sold. In 1985 and 1986 -- the last two years for which the Commerce Department has completed annual reviews -- bounties or grants received by Mexican motor vehicle glass fabricators were found to be zero and de minimis, respectively. Further, it appears that one of the subsidies originally investigated by Commerce -- the Preferential Tax Incentives Program (CEPROFI) -- no longer exists, and the Government of Mexico has made a public commitment to terminate the grant of all subsidies to automotive glass producers. In light of Mexico's dramatic progress in the past 5 years in opening up its economy to free market forces,[10] I find that commitment to be credible.

In conclusion, based on my evaluation of the condition of the domestic industry and the current impact of Mexican imports, and because I believe that whatever subsidies may become available in the near term to Mexican producers following revocation of the order will not generate substantial volumes of low priced imports, I find that, upon revocation of the

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[8] Ford also captively consumes imports produced by a wholly-owned Mexican subsidiary, Auto Vidrio. I note that imports from Vitro Flex and Auto Vidrio are unlikely to injure other U.S. producers, as Ford is buying those imports largely for reasons other than price.

[9] Vitro Plan, S.A., the parent company of CRINAMEX, has announced the formation of a new company, Auto Templex, which will manufacture tempered automotive glass. The additional production capacity represented by Auto Templex is intended to meet demand on the part of Mexican vehicle manufacturing plants and not increase exports to the United States.

[10] See generally, Phase 1: Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States-Mexican Relations, USITC Publication 2275, April 1990.

outstanding CVD order, Mexican imports of fabricated automotive glass will not materially injure, or pose a threat of material injury, to a domestic industry.

Findings of Commissioner Eckes

Before providing my own conclusion of the effect of revoking the countervailing duty order, it is appropriate to offer several general observations about this process.

First, I tend to agree with the general reservations that my colleague Commissioner Rohr expressed in the similar exercise involving imports of lime from Mexico.1/ In brief, the views I offer in this Section 332 exercise are not necessarily the views and determination I would reach in a formal title VII investigation on this same subject.

It is important to note that the Commission's views in this investigation have no direct effect on any decision to remove this order. Moreover, if this exercise had been a formal Title VII proceeding, the record and argumentation would differ and perhaps be more vigorous and complete. Also, unlike the present findings, any determination to revoke or modify the order in a 751 review investigation must be supported by "substantial evidence."2/

Second, the present views are offered to comply with my understanding of the USTR's request and to fulfill the Commission's obligation to provide the information requested. I will not address the issues raised by those participating in this investigation on the propriety or the legality of this exercise.

In providing my analysis I pursued a two-step approach. Initially, I considered the probable impact that removal of the subject order would have on imports of the subject merchandise, or stated differently, I examined probable import behavior. Then, I considered the impact of such imports on the domestic industry under consideration. From the requesting letter, it is evident that the Commission should look to certain title VII provisions for guidance in framing its report and analysis.

1/ "Conditions of Competition Between U.S. and Mexican Lime in the United States Market," Inv. No. 332-271, Pub. No. 2210 (August 1989) at p. v, fn. 2.

2/ Matsushita Elec. Indus. Co. Ltd. v. United States, 750 F. 2d 927 (Fed. Cir. 1984).

Like product and domestic industry

In this investigation, I have found the appropriate like product 3/ to be fabricated automotive glass.

A central issue in this investigation is whether the Commission should treat laminated and tempered automotive glass as a single like product or as two separate like products. Both laminated and tempered glass move though the same distribution channels to original equipment and replacement purchasers. There is no difference in physical appearance between the two types of glass, and both can be manufactured in many sizes, shapes, and shades.

Although, by law, windshields must be made of laminated automotive glass, there is apparently significant functional interchangeability between the laminated and tempered glass for the remainder of the glass used in a vehicle. This common use is reflected in the increased use of laminated automotive glass in the non-windshield areas of vehicles.

Accordingly, I find a single domestic industry consisting of the domestic producers of fabricated automotive glass. 4/ 5/

Likely Effect of Revocation of the Order

In examining the likely effect of removal of the order on import volumes and prices, I considered a number of factors: the

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3/ "Like product" is defined as "a product which is like, or in the absence of like, most similar in characteristics and uses with" the articles subject to investigation. 19 U.S.C 1677(10).

4/ Domestic industry is defined as "the domestic producers as a whole of a like product...." 19 U.S.C. 1677(4)(A).

5/ Ford is the only producer with significant imports subject to the outstanding order. I do not find that Ford has benefitted recently from the Mexican practices at issue by virtue of this relationship. Therefore, I do not find it appropriate to exclude its data from my analysis regarding the condition of the domestic industry.

operation of the outstanding order; the past behavior and performance of foreign producers and importers; the capacity of producers in Mexico; and the stated intent of those producers and importers regarding near-term production levels and export expectations.

Of initial concern is the CVD order itself. Representations made during the course of this investigation indicate that some of the subsidy programs no longer exist or are not available to these Mexican producers as a matter of government policy. Furthermore, the most recent Department of Commerce determination indicates that Mexican producers subject to the order received no subsidies for imports entered during 1986.

I recognize that according to the statute, the Department of Commerce has responsibility for determining the existence of countervailable programs and their availability to producers. But, to my knowledge, the Commission has received no formal notice from the Department of Commerce on the status of these programs.

I note that FOMEX, the program that accounted for most of the original CVD margin, is an export subsidy and is still apparently available to Mexican producers of fabricated automotive glass. Therefore, in the absence of information from Commerce, I must presume that such subsidy programs continue to be available and that subsidized imports would continue if the order were revoked.6/

Regarding expected trends, the confidential nature of information on production and export plans of the firms currently subject to the outstanding order precludes a detailed analysis, but general observations serve as the basis for my concerns.

Projected 1990 production increases by these Mexican producers will total 8.2 million square feet. A new facility which will begin production during 1990 adds significant additional capacity; this added capacity would represent more than a 10 percent increase in total capacity for all Mexican producers subject to the order. Further, another new facility which came on stream in 1989 will reach its full capacity during 1990.

6/ American Permac v. United States, 831 F.2d 269, 274 (Fed. Cir 1987).

By conservative calculations, projected production increases in 1990 will easily be 15 percent higher than 1989 production levels.

Where will this increased production be marketed? There is scant information in the record regarding even past Mexican demand for auto glass in Mexico. Although information on home market shipments and 1990 projections is available for some producers on OEM and replacement sales in Mexico, we lack such information for a number of other Mexican producers.

Further, projections by producers providing such data cover only 1990. It may be that new entrants in the Mexican industry will exert pressure on producers not now exporting to consider export sales. While some of this increase may be destined for captive consumption in the United States, captive U.S. consumers also sell in the open-market.

It is important to note that the stated intentions by Mexican producers subject to the order are to export to the U. S. an amount of fabricated glass in 1990 significantly greater than in 1989. This increase is destined for both captive and open-market consumption. The nature of U.S. OEM demand is such that there is little certainty that captive auto producers will in fact consume all they import.

In short, indications of increased Mexican production and export levels raise valid concerns regarding the volume of imports in the absence of this order. Clearly, production levels are to increase. What is unknown is the level of Mexican demand for increased supply.

Nor do we know about available third markets for any oversupply. Given the historical role of the U.S. as the market for essentially all Mexican exports of glass, the prospect of significant import volumes in 1990 cannot be readily dismissed based on the incomplete information which is available.

Of more certainty is the sensitivity of the U.S. market to price competition from any increase in imports. The merchandise covered by this investigation is regarded as being highly substitutable and particularly price sensitive.

Purchasing decisions are made on the basis of price, and demand is not responsive to changes in price. Some price data indicate recent instances of Mexican glass being competitively priced among the lowest bids.

Changing conditions in Mexico may direct more glass to the U.S. market, and the incentive to make additional sales makes an adverse price impact likely.

Condition of the Domestic Industry

Having determined that increases of imports from Mexico in 1990 will be significant, I also considered the impact of these volumes on the domestic industry. 7/ The condition of the domestic industry shows signs of deterioration and increasing vulnerability to import competition. Although apparent U.S. consumption has increased over the past three-year period 1987 to 1989, the share supplied by domestic producers declined almost 8 percent in 1989, from 80.4 percent to 72.8 percent in 1989. Its share of open-market consumption follows a similar trend.

The domestic industry has increased capacity annually, increasing 13.6 percent over the period. At the same time, utilization rates declined from 74 percent in 1987 to 69 percent in 1989. After increasing in 1988, production levels dropped in 1989. Shipments have lagged behind production levels, resulting in somewhat higher inventory levels at the end of the period.

Although employment levels fail to reflect production declines, there is a plausible explanation. Since the production process requires highly-skilled workers, firms may be reluctant to lay off workers in periods of economic declines. Productivity data support this notion as productivity has fallen through the period.

Financial data show continuing declines in operating profits for the industry as a whole, dropping from 13.7 percent in 1987 to 7.5 percent in 1989.

7/ I examined the condition of the industry, considering those factors set forth in that statute, as amended by section 1328 of the Omnibus Trade and Competitiveness Act of 1988: domestic production and consumption, capacity and capacity utilization, shipments, inventories, employment, wages, financial performance and existing development and production efforts within the context of the business cycle and conditions of competition that are distinctive to the domestic industry. 19 U.S.C. 1677(7)(C)(iii), as amended.

Finally, the short-term projected performance of this industry remains unfavorable because of the slump in domestic automobile production.

Conclusion

Mexican producers, currently exporting to the U.S., have indicated that their fabricated auto glass exports will increase significantly in 1990. At the same time the domestic industry, which increased capacity during the period the CVD order has been in effect, now experiences lagging financial performance and enhanced vulnerability to increased import competition.

From my vantage point, it is not possible to ignore the implications of increased competition from Mexico. New plants are coming on stream, production levels are increasing, and exports to the U.S. are continuing to rise. There is little in the record of this investigation to suggest that the U.S. industry will not be adversely affected in 1990 by the significant volume of imports and the price behavior of this increased supply in the U.S. market. Therefore, I conclude that an industry in the United States would be materially injured if the outstanding countervailing duty order were to be removed.

Views of Commissioner Lodwick

Like Product

I find that there is one like product: fabricated automotive glass consisting of laminated and tempered automotive glass.

The Likely Effect of Revocation

The analysis in this investigation is necessarily predictive in nature. The USTR Request asked the Commission to determine "whether (1) an industry in the United States would be materially injured, or would be threatened with material injury, or (2) the establishment of an industry in the United States would be materially retarded[1] if an outstanding countervailing duty order on Fabricated Automotive Glass from Mexico were revoked by the Department of Commerce." This request asks the Commission to forecast the likely effect of revocation of the outstanding CVD order upon the domestic industry.

Availability of Mexican Subsidy Programs

Considerable time and space has been devoted to the present availability of Mexican programs found to be countervailable by the Department of Commerce in its original investigation.[2] PPG industries have alleged that even if the CEPROFI program is deemed discontinued, payments that carry the same name may continue to be made.[3] However, witnesses for Mexican interests state that the CEPROFI program no longer exists.[4] In addition, Mr. Miquel Leaman, Minister of Trade Affairs, Embassy of Mexico, informed the Commission that the Government of Mexico confirms that the benefits that were available in 1984 are not available today.

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[1] The U.S. auto glass industry has been producing glass for the U.S. automotive industry for many years. Material retardation is therefore not an issue in this investigation.

[2] Commerce announced on August 27, 1984 (49 F.R. 33919) that it was initiating an investigation into allegations by PPG Industries, Inc. of Pittsburgh, PA that Mexico pays or bestows, directly or indirectly, subsidies, bounties or grants within the meaning of Section 303 of the Tariff Act of 1930 upon the manufacture, production and export of fabricated automotive glass manufactured in Mexico. On January 14, 1985, the Department of Commerce published its final determination (50 F.R. 1906) that certain benefits that constitute bounties or grants within the meaning of the countervailing duty law are being provided to manufacturers or exporters in Mexico of fabricated automotive glass. Supra at 1.

[3] Hearing transcript at 35.

[4] Hearing transcript at 64.

The International Trade Commission, in its recent report on Mexican liberalization measures, noted the recent changes in the FOMEX and CEPROFI programs as part of Mexico's recent shift in its development policy.[5] It was reported that the FOMEX program's lending rates have been altered in compliance with subsidies agreements and that the FOMEX program is scheduled to be merged with Bancomext in 1990. The Commission also reported that the CEPROFI tax credit programs, whose benefits were found to be countervailable in U.S. CVD programs, also appeared to be cut back. The Commission reported this information as provided by various official and unofficial sources. However, the Commission does not have the resources or the expertise to verify and determine the exact nature of these programs but simply reports information from what it deems reliable and available sources. Only the Department of Commerce has the authority and the expertise to investigate the FOMEX and CEPROFI programs as to their current availability and countervailability as well as the nature of any other subsidy programs which would also affect the fabricated auto glass industry. I defer judgement to the Department of Commerce concerning countervailable benefits available to Mexican producers from these programs as well as to the actual existence of these programs.

While the Department of Commerce, in its review process, has found that Mexican motor vehicle glass fabricators received no preferential treatment from such programs in 1986, the latest ruling being dated December 19, 1989, the Department of Commerce has not determined, to my knowledge, that these programs no longer exist. This is an important distinction: the use of program benefits by an industry as opposed to the availability of the program itself. Until I am informed by the Department of Commerce that these programs no longer exist or the outstanding CVD order on auto glass is no longer necessary, I must assume that the original findings concerning the existence of the FOMEX and CEPROFI programs and the level of subsidies available to Mexican fabricated auto glass producers to be the guiding conclusion in this investigation. That conclusion was that the FOMEX and CEPROFI programs are available and can confer a benefit equal to a 4.68% ad valorem bounty or grant.[6] However, in deference to information provided by witnesses at the hearing and the findings concerning these programs reported in previous investigations by the International Trade Commission, I recognize that analysis involving the use of 4.68% ad valorem bounty represents an upper bound as to the impact of the revocation of the outstanding order on the United States fabricated auto glass industry. However, even if future subsidy levels were to be somewhat below the original bounty as found by Commerce, I would still make the same determination with regards to injury or the threat of injury based on the nature of competition between the U.S. and Mexican fabricated autoglass industries and the present state of the U.S. industry.

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[5] Review of Trade and Investment Liberalization Measures by Mexico and Prospects for Future United States - Mexico Relations. Phase: Recent Trade and Investment Reforms Undertaken by Mexico and Implications for the United States, Investigation No. 332-282, USITC Publication 2275, April 1990. See text at 4-19 to 4-21.

[6] On January 14, 1985, the Department of Commerce established a countervailing duty deposit rate of 4.68 % ad valorem on fabricated automotive glass imported from Mexico, except for that manufactured and exported by L-N Safety Glass.

Analysis Assumptions

This analysis is complex, given the information available, but unlike a previous related investigation, Conditions of Competition between U.S. and Mexican Lime in the United States Market,[7] present market conditions are not assumed to be distorted by subsidized fabricated auto glass imports from Mexico[8]. It is also assumed that subsidized sales of fabricated autoglass will continue or resume if the order is revoked[9]. The relevant market conditions assumed to

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[7] Conditions of Competition between U.S. and Mexican Lime in the United States Market, Investigation 332-271, USITC Pub. 2210, August 1989.

[8] Monitoring efforts by the U.S. Commerce Department have verified Mexican compliance with an agreement with Mexico in 1984 not to use FOMEX, CEPROFI and certain other programs in the making of float glass, a major input for fabricated glass. The Department of Commerce has also determined that Mexican motor vehicle glass fabricators received no preferential treatment from such programs in 1986, the latest Commerce ruling.

There is considerable testimony stating that Mexican firms do not benefit from these programs now. (U.S. parties -- Prehearing statement at 20, Transcript at 14, Posthearing statement at 18; Prehearing statement at 27-37; Mexican parties -- Transcript at 64-5, Posthearing statement at 13-19) The Mexican government would also have an incentive to withhold any FOMEX and CEPROFI benefits from Mexican firms subject to a outstanding CVD order: Mexican government expenditures on FOMEX and CEPROFI programs are "captured" by the U.S. Treasury Department in the form of CVD duties. Mexican autoglass producers are less affected than the Mexican government by the subsidy and a CVD order. Cost reductions by Mexican companies as enabled by the subsidy programs are effectively offset by the payment of a CVD duty upon an export sale of the finished product. However, the pricing, investment and production decisions of the Mexican float glass producers and fabricated glass exporters are affected by the outstanding order. Mexican fabricated glass exports, as a result of the order and Mexican government compliance, are competing on a fairly traded basis in the United States. If these program benefits were available to Mexican fabricated glass producers, they could be competing in the U.S. fabricated auto glass on an unfairly traded basis if no outstanding CVD order were in place.

If it is assumed that Mexican fabricated auto glass producers are not currently benefitting from the FOMEX and CEPROFI programs and there is a zero countervailing duty, then current market conditions are not distorted by the import of subsidized Mexican fabricated auto glass. It is reasonable to assume that Mexican imports are currently being subsidized at the last rate found by the Department of Commerce monitoring. The last ruling by the Department of Commerce dated December 19, 1989 (54 F.R. 51908) found that Mexican motor vehicle glass fabricators received no preferential treatment from such programs in 1986. The petitioner also has not alleged that the Mexican producers are currently receiving benefits from the FOMEX or CEPROFI programs. Therefore, I assume that the Mexican glass fabricators are not receiving preferential treatment from those programs now.

[9] This is by my earlier assumption that the original finding by the Department of Commerce is the guiding determination.

Mexican businesses, assumed to be profit maximizing firms, would also take advantage of the subsidy programs offered in order to lower their costs. The Fund for the Promotion of

(continued...)

exist are a fairly traded market before revocation and an unfairly traded market, due to subsidized Mexican imports, after revocation.

The Commission has examined a number of factors in forecasting the likely effect of revocation on import volumes and prices, including: past behavior of foreign producers and importers; capacity and capacity utilization of Mexican fabricated autoglass producers, and the amount of the duty. After examining these factors, the Commission has analyzed the likely effect of imports on the U.S. fabricated autoglass industry. However, it is necessary to first understand the conditions of competition in the U.S. autoglass industry.

Conditions of Competition in the U.S. Fabricated Auto Glass Industry[10]

The OEM market, the principal market for fabricated automotive glass, is composed of few buyers and sellers with a variety of buyer/seller relationships.[11] Two of the three big domestic automobile producers source a large part of their automotive glass requirements from internal or related sources.[12] While General Motors primarily sources its automotive glass from unrelated sources, Ford obtains about * * * of its automotive glass requirements from internal or related sources. Chrysler sources about * * * of its automotive glass needs from captive firms.

Some of the OEM customers, such as GM and Chrysler purchase on a competitive bid process. GM's automotive glass suppliers work with GM design engineers in advance of a bid; official bids by design specification are then solicited from a number of suppliers several months to a year in advance of a vehicle's production. Chrysler's bid process is similar to that of GM.

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[9](...continued)
Exports of Mexican Manufactured Products (FOMEX) program would allow exporting Mexican firms to lower their interest costs. The Preferential Federal Tax Incentives (CEPROFI) program would allow Mexican businesses to lower their actual tax costs through the use of the CEPROFI tax credit certificates.

Removal of the outstanding CVD order by the United States would also remove a major incentive for the Mexican government to agree to withhold any FOMEX and CEPROFI programs from Mexican float glass and fabricated glass producers. The actual level of benefits made available to Mexican fabricated auto glass producers upon revocation of the outstanding CVD order depends on Mexican policy and development goals.

[10] Much of this discussion of the conditions of competition in the U.S. fabricated automotive glass industry is based on the information developed in Economic Memorandum, Investigation No. 332-286 (Final): Fabricated Automotive Glass from Mexico, INV-N-041, May 10, 1990.

[11] There are nine fabricated autoglass producers listed as manufacturers in the United States. Report at 8. * * *.

On the demand side, purchases of automotive glass was dominated by a few purchasers such as Chrysler, Ford and GM.

[12] Open market consumption increased slightly from * * * of total consumption in 1987 to * * * in 1989.

Chrysler will sometimes work with a preferred bidder but will ask that bidder to rebid if the preferred bidder's price is too high; however, the lowest bidder is usually selected.

An examination of the OEM bid price data[13] reveals that in many bids, in which there was more than one bidder, the margin between the winning and the next lowest bid was less than 2 percent. Price appears to be very important in the winning of bids with OEM purchasers. These are narrow bid margins reflecting the nature of the product, and the power of the OEMs in setting prices. Automotive glass producers appear to wield much less market power than OEM purchasers. Price information gathered by the Commission staff revealed that glass producers have had limited success in raising prices to OEM purchasers over the period of investigation. Ford, while purchasing over * * * of its glass internally from its own glass division, constantly monitors the price of fabricated automotive glass charged by its glass division. Ford evaluates changes in material costs, changes in productivity and worldwide competitive bids of unrelated companies. If the price from Ford's glass division is considered too high, the glass division may be asked to adjust its price or Ford may purchase from an outside source. So while counsel of Ford may argue that most of Ford's imports from Mexico are captive production, outside price pressure definitely appears to affect Ford's internal pricing practices and sourcing decisions with open market sourcing a definite option and shifting of Ford's internal sourcing among its plants in the U.S., Canada, and Mexico. Japanese owned auto producers tend to establish a relationship with one supplier and negotiate with the supplier to meet a target price. However, no price increases were granted by the Japanese-owned producers to their glass suppliers.

The fabricated autoglass aftermarket consists of a large number of distributors and installers who purchase glass on a weekly basis. Prices are based on truckload pricing schedules which are set by automotive glass producers on an annual basis. Distributors and producers then negotiate prices through a set of discounts from the truckload prices. Inventory stock, fill rates and perceived glass quality are important factors in the after market. Individual aftermarket purchasers have less market power than OEM purchasers. However, since the principal customers in the aftermarket are insurance companies, price is the most important consideration.

Price sensitivity

The price setting power of the OEM purchasers comes from the comparatively small number of automotive glass purchasers and the more numerous automotive glass suppliers[14], the inelasticity of total demand for automotive glass which the Commission staff estimates to be less than .1 and the high elasticity of substitution between fabricated autoglass from different

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[13] Supra tables 35 to 42.

[14] In addition to the nine known U.S. fabricated automotive glass suppliers, the U.S. has imported fabricated automotive glass from over six foreign countries. Supra at table 30.

suppliers.[15]

All fabricated automotive glass sold in the United States must meet minimum U.S. Department of Transportation specifications and is comparable and substitutable. Commission staff estimates the elasticity of substitution between domestic and Mexican fabricated automotive glass produced for the OEMs to be most likely greater than 5. This probably is close to what the elasticity of substitution between U.S. suppliers is. This implies that if PPG attempts to raise its prices by 1%, that it could lose over 5% of the volume of its sales to other fabricated suppliers, both domestic and foreign thereby losing total sales revenues. Conversely, a supplier could lower its prices by 1% and stand to increase the volume of its sales by 5% thereby increasing its total sales revenues. This results in strong incentives by suppliers to lower their prices to gain sales or to match their competitor's bids thereby driving bid levels down to long run marginal cost of production or even lower in the short run depending on capacity utilization tradeoffs. OEM purchaser practices and the narrow bid margins reflect the leverage that purchasers have over suppliers that try to raise their prices.

However, not all suppliers can lower their prices to gain sales due to the very inelastic total demand for fabricated auto glass.[16] Lower bid levels will necessarily result in lower total revenues for the entire fabricated glass industry as demand will increase very little.[17] Suppliers facing downward price pressure from purchasers cannot hope to gain new buyers if prices fall. A winning bid by one supplier and an increase in volume of its sales is necessarily a reduction of sales volume by another supplier.[18]

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[15] Given the volume of fabricated auto glass the major users purchase, they have options of purchasing glass from domestic or imported suppliers or to build their own fabricated autoglass plant. Plant sizes range from producing 200 to 29,600 thousand square feet of glass annually or supplying glass for 500 to 1000 thousand cars annually. In 1989, 654,000 thousand square feet of fabricated autoglass was consumed in the United States and about 11,000 thousand car and trucks were produced in the United States. A large purchaser like Ford has six auto glass plants supplying its auto assembly facilities and can choose to build internally or purchase glass from unrelated parties.

[16] An U.S. producer notes the inelasticity of demand in its prehearing submission at 33-36.

[17] The demand for fabricated auto glass is largely determined by the level of derived demand for automobiles. This implies that a change in the price of fabricated autoglass will have little effect on the total demand for fabricated autoglass. If autoglass prices fall, total industry revenues will fall as the increased demand for fabricated autoglass, in reaction to lower fabricated autoglass prices, does not increase in the same proportion as the fall in fabricated autoglass prices. Conversely, a rise in fabricated autoglass prices will result in higher fabricated autoglass industry revenues. i.e. the aggregate demand for fabricated autoglass is inelastic.

[18] Ford shifting production to Mexico means a loss to its Canada or U.S. plant production levels if demand for autoglass does not increase.

Plant capacity

The fabricated automotive glass producing industry is also characterized by high capital costs. The average capacity utilization in the tempered and laminated glass industries ranged from 63 to 88%.[19] High fixed capital costs provide an incentive for automotive fabricated auto glass producers to increase their capacity utilization in an effort to lower their per unit fixed costs in a very price sensitive market.[20] This puts downward pressure on the bid prices submitted by firms in order to win bids and ensure higher capacity utilization in their plants. Fabricated autoglass producers cannot control the dynamics in the automobile market and the sale levels of individual models but the autoglass producers do have some discretion in the number and type of bids they submit in an attempt to fully utilize their productive capacity. Given the scale of a fabricated autoglass production facility in relationship to total U.S. production and consumption and the competitive conditions in the fabricated automotive glass market, the building of a new plant can have significant impacts on the entire industry.[21] The Commission staff estimates that it would take from 16 to 24 months to bring a new fabricated autoglass plant into production. In addition, plant capacity can be increased within a year by adding a processing line in an existing facility in response to winning new bids or increased demand for existing bids. Fabricated automotive glass capital equipment requires significant capital investment to be modified to produce other products. Therefore, changes in domestic and foreign plant fabricated automotive glass capacity will definitely impact the fabricated automotive glass market due to the dedicated nature of the capital assets.

Float glass supply is also a major consideration for fabricated auto glass producers. PPG noted that float glass plants must operate at full capacity to be cost effective. As a result, fabricated automotive glass producers that also produce float glass may not decrease production of fabricated automotive glass in response to short term fabricated auto glass price decreases. This makes some U.S. fabricated auto glass producers even more vulnerable to possible price declines.[22] However, float glass can also be sold in the construction markets in an effort to ease excess supplies of float glass for the fabricated auto glass production.

Given present capacity utilization and the dedicated nature of capital assets in fabricated auto glass production and the concurrent production of float glass by some fabricated auto glass producers, the Commission staff estimates that the elasticity of domestic supply ranges between 2 and 4. This implies that an increase of one percent in domestic price levels would result in a

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[19] Supra at 12 and 13.

[20] There may be some upper limits in the practical capacity utilization as firms may want to retain some excess capacity to meet unanticipated surges in ongoing orders for specific automobile models enjoying unexpected sales success. However, there is sufficient lead time given by auto companies gearing up their production lines so auto glass companies can bring additional capacity on line if necessary.

[21] * * *.

[22] Firms with captive float glass must lower their bid prices in order to maintain production and shipment volumes. The alternative would be to reduce production volume of fabricated auto glass and float glass and incur higher per unit costs for both fabricated and the float glass as fixed asset costs in the production facilities are spread over less units.

two to four percent increase in volumes of fabricated auto glass supplied by the U.S. industry as U.S. firms win more bids and bring marginal assets into production. Conversely, a one percent drop in domestic price levels would result in a two to four percent decrease in volumes of fabricated auto glass supplied by the U.S. industry as U.S. firms lose bids and cut back on the use of their productive assets.

Probable Impact that Revocation of the CVD order would have on Imports of the Countervailable Goods

Foreign Capacity, Capacity Utilization and Ability to Respond to Market Changes

Six firms are known to manufacture fabricated automotive glass in Mexico. Four of these firms, Vitro Flex, CRINAMEX, Shatterproof De Mexico and Vitro Plan de Mexico are Grupe Vitro subsidiaries of Vitro, S.A., a holding company for over 70 glass related companies accounting for approximately 85% of the overall Mexican glass market.[23] Two of the remaining autoglass producing firms are maquiladora operations linked to U.S. based auto manufacturers. One of the maquiladora firms, owned by Ford, is a new operation during the period of investigation. In addition, Vitro Plan announced the formation of a new company, Auto Templex, which will produce tempered automotive glass. The following tabulation lists the Mexican automotive glass productive capacity and their exports to the United States:

* *

As can be seen from the preceding tabulation, Mexican autoglass producers export a large portion of their fabricated autoglass production to the United States and depend on U.S. exports to maintain their capacity utilization. In addition, there is unknown capacity available for fabricated auto glass production for sale in Mexico and abroad. If 500,000 new motor vehicles were sold in Mexico in 1989[24], about 23,500 thousand square feet[25] of fabricated auto glass would be consumed in the production of these vehicles sold in the Mexican market. If the Mexican aftermarket accounts for about 30% of total fabricated glass consumption, total Mexican fabricated automotive glass use could be estimated at about 33,000 thousand square

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[23] According to the petition.

[24] In 1982, about 460,000 new motor vehicles were sold in Mexico. Sales dropped to 275,000 in 1983 and rebounded to 470,000 new motor vehicles in 1986. (U.S. Global Competitiveness: The U.S. Automotive Parts Industry, Investigation No. 332-232, USITC Publication 2037, December 1987 at 4-27).

[25] Using rough estimates, assuming that about 45 square feet of auto glass were used per vehicle (15 square feet for a windshield and eight tempered pieces totalling 32 square feet).

feet annually. This would leave about * * * thousand square feet of minimum known capacity available for the export market in 1990. The increase in estimated capacity by Vitro Flex for 1990, which primarily produces for the export market and the planned establishment of Auto Templex facilities, reportedly to serve the domestic Mexican market, indicates that Vitro S.A., the holding company for both these companies, anticipates increasing demand in the fabricated autoglass industry, at home or abroad. However, there has been testimony concerning expanding Mexican demand for autos which would decrease pressures to export fabricated auto glass.[26]

PPG also alleges that a new float glass plant with large production capacity is being built in Mexico. Mexican producers acknowledged that a new automotive glass facility is being constructed near the new float glass plant.[27] Mexican producers state that the new float glass plant is being built to replace existing or recently closed sheet glass operations and does not represent a significant growth in the amount of float glass available for automotive glass.[28] As noted earlier, a new fabricated autoglass plant could be brought into production in 16 to 24 months; plant capacity can be increased within a year by adding a processing line in existing plants.[29]

Incentive to Export

Ford's ownership in Vitro Flex and Auto Vidro and Vitro S.A.'s controlling interest in the four of the Mexican firms producing fabricated automotive glass, indicates an ability and an incentive for Ford and Vitro S.A. to respond to changes in the fabricated automotive glass market. These firms are well positioned to respond to changes in the consumption of fabricated auto glass in the U.S. or Mexican markets. Vitro S.A., as a dominant holding company in the Mexican glass market, would also have an interest in the expansion of its held Mexican companies into the large and near U.S. market. Mexico also benefits from low priced energy costs in the production of float glass and has low labor costs giving Mexican firms a competitive cost advantage over U.S. competitors even without the benefit of export subsidies.

There is a considerable volume of fabricated autoglass produced in Mexico being exported to the United States implying that much of Mexican productive capacity dedicated to the production of fabricated autoglass relies on sales in the U.S. market. In addition, a considerable level of Mexican production capacity serves the Mexican market; a downturn in the Mexican demand for autos, as happened from 1982 to 1983, would make considerable excess capacity available for the export market.

The willingness of Ford to invest in its Auto Vidro facilities indicates Ford finds it profitable to import some of its fabricated autoglass from Mexico instead of producing it

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[26] Transcript at 94; Posthearing submission at 21.
[27] Prehearing submission at 14-16; posthearing submission at 25-27. Submission to the Commission on April 27, 1990
[28] Transcript at 93-95.
[29] Economics memorandum, INV-N-041, at 5 and 6.

domestically. The planned formation of Auto Templex, designed to have an annual capacity of * * *.

Given the time lag between the winning of a bid and actual production of fabricated auto glass for that bid, the adding of more capacity or the building of new plants, if needed, is possible. Therefore existing capacity is not a constraint to meeting new demands for productive capacity. Both Ford and Mexican producers have demonstrated a willingness and an ability to add new capacity to meet demand for fabricated autoglass. The Commission staff estimates an elasticity of supply by Mexican producers of 1 to 4.[30] This implies that a one percent increase in price would increase Mexican supply of fabricated automotive glass by one to four percent. This supply response would be higher in the long run during which time firms can build or add new capacity.

There is conflicting information concerning Mexico's automobile and construction industries and the future Mexican demand for fabricated auto glass by auto producers and demand for float glass by the construction and fabricated autoglass industries. However, with a large float glass facility coming into production and its need to be run at full capacity, any reduction in projected Mexican demand for float glass would put pressure on the export market and affect bid prices for products using float glass. This issue, however, is not directly related to the issue of revocation of the outstanding order.

Magnitude of the Subsidy

As stated earlier, the original determination by the Department of Commerce involved a finding of a 4.68% bounty rate. This can be used to approximate the maximum effect that revocation of the outstanding order would have on the U.S industry if that level of subsidies became available to Mexican producers. If Commerce determines that another rate would be appropriate, then that rate can be used to estimate the effects of the revocation. The Department of Commerce would also have to determine whether any subsidies programs available upon revocation would be available to all Mexican fabricated auto glass companies or just to those found to be benefitting from the subsidies in the original order.[31]

Both of these subsidy programs, as noted earlier, would allow Mexican firms to reduce their costs and lower their bids in the export markets. The effect of the FOMEX program, which subsidizes export financing, would have a more direct effect on the prices of Mexican exports of fabricated auto glass than would the CEPROFI program, which offers a tax credit to firms exporting a portion of their production.

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[30] Economics Memorandum, INV-N-041, at 11.

[31] Witnesses for U.S. interests claimed other subsidy programs were available. Hearing transcript at page 35.

Share of the U.S. Market Held by Imports[32]

Mexican market share of the total volume of U.S. consumption of fabricated automotive glass[33] stayed stable at about 6 percent in 1987 and 1988 and dropped to 5.8 percent in 1989. Other imports increased their share of the total volume of U.S. fabricated auto glass market from 14.4% in 1987 to 21.4% in 1989. Total import market share of the total volume of U.S. consumption of fabricated automotive glass increased from 20.4% in 1987 to 27.2% in 1989.

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The availability of other export markets

The information available in the report indicates that some Mexican producers ship to other export markets, * * *.[34] Exports to the United States, however, accounted for the vast majority of exported Mexican produced fabricated automotive glass.

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[32] Supra at table 32.

[33] I note that these import figures include imports from L-N Glass who was not subject to the order.

[34] Supra at tables 24 to 26.

Material Injury or Threat of Material Injury Due to the Revocation

The likely volume of imports

If the outstanding order was revoked immediately, the likely volume of imports in the very near future, such as the next month, would not increase significantly. The general level of imports of Mexican fabricated auto glass are already established for the next six months to a year. Ongoing contractual obligations from bids won by Mexican firms before the revocation of the outstanding order would dictate the level of imports within the year after revocation. Subsidized Mexican imports as a result of new bids won by Mexican firms because of a renewal of export programs after the revocation of the duty would not impact the U.S. market until over a year or more after the bid is won. This gives Mexican firms the ability to add new production lines within a year and whole new plants within two years in response to winning contracts with subsidized bids.

The most graphic example of the effect of changes in the duty rate is illustrated in the change in imports of fabricated automotive glass from Mexico before and after the imposition of the final affirmative countervailing duty determination and countervailing duty order on fabricated automotive glass from Mexico. This order was issued on January 15, 1985 but the effect of the order did not become apparent until 1986 due to the lag between final bid submission and the actual delivery of the Mexican produced fabricated auto glass to auto companies.[35] Mexican imports dropped sharply from 55.2 million square feet in 1985 to 22.9 million square feet, a more than halving of Mexican imports and a loss of 32.3 million square feet of exports for Mexican fabricated autoglass firms. This would be equivalent to dropping from a 8.4% U.S. market share to a 3.5% U.S. market share in 1989. This is not an insignificant drop in U.S. market share for Mexican imports.

It is very likely that a gain in Mexican imports in U.S. market share could equal or exceed this change if the outstanding order were revoked. As noted earlier in the discussion of bids and winning bid margins, many bids are most often won by the lowest bid and that less than a 2% margin often exists between the winning and the next lowest bid.[36] Mexican auto glass producers benefiting from a subsidy up to 4.68% would give them a tremendous advantage in the pricing of their bids over their U.S. and foreign competitors thereby allowing Mexican firms to win many additional bids and increase Mexican import volumes. Depending on capacity and investment considerations, Mexican firms could increase the number of bids they win by lowering their bid prices to increase Mexican exports to the United States or could simply maintain their current bid prices and increase the profits of their Mexican operations. However, the FOMEX program is an export financing program from which benefits are derived upon exportation of goods thereby encouraging Mexican firms to increase their exports. Mexican firms would be able to increase their profits, more fully utilize their capacity, increase their employment and increase their export volumes.

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[35] The lag in supplying successful bids is noted on pages 40 and 41 of this report.
[36] See tables 35 to 41.

As indicated earlier, Mexican imports account for nearly six percent of total U.S. consumption of fabricated auto glass and about * * * percent of U.S. open market consumption of fabricated autoglass. * * *.[37] Since Mexican imports dropped by more than half after imposition of the order, it would not be unreasonable to assume, and probably conservative given the conditions of competition in this market, that they would double upon revocation of the order. This would involve an annual increase of about 38 million square feet of fabricated glass impacting the U.S. market representing a loss of about 6% of market share by U.S. firms and other importers within two or three years of revocation of the order.[38]

The significance of those import volumes

An annual increase of about 38 million square feet of fabricated auto glass imported into the U.S. market from Mexico within two years of revocation of the outstanding order would represent a loss of about 6% of U.S. market share by U.S. firms and other importers if U.S. consumption of fabricated auto glass stays constant and less than that if U.S. auto sales continue to rise. 38 million square feet of fabricated auto glass would represent about 7.2% of total U.S. production of fabricated autoglass in 1989 and a drop in U.S. capacity utilization from 68.9% to 63.9%.[39]

Likely Effect of Imports on the Prices of the Like Product

Since the programs involved are primarily export subsidy programs, the government of Mexico, not the Mexican industry, determines how much is spent on the subsidy programs. Whether the Mexican firms export some or all of their domestic production does not affect the level of subsidy that is provided when exports impact the United States; Mexican firms can "pass through" up to 100% of the subsidy level provided. Removal of the order would give the Mexican firms much greater flexibility in pricing and choosing which bids to enter given their bid price advantage. They could keep the profits and invest in expansion of their facilities or lower their bid prices to gain market share.

In the United States, the impact of Mexican export subsidies on U.S. bid prices for specific automobile models is greater than if Mexican imports were affecting a competitive market for a homogenous product. Through the bid process, Mexican imports can systematically win bids for individual models by submitting the subsidized bids. The effect of losing bids on other bidders will eventually affect the entire bid structure as other firms lower prices to maintain capacity utilization.[40] It is difficult to estimate the precise effect on U.S. bid

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[37] Ford also buys about * * * of its needs from the open market.

[38] Even if a full doubling of imports does not result, the expected imports would be significant and higher than present levels.

[39] Supra at 11.

[40] PPG notes that it may well be forced to lower its prices if the order is revoked, especially in the replacement market which is extremely price sensitive. Low priced imports have a ripple

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prices, but that effect would be less than the 4.68% export subsidy level assumed. However, bid prices would decline as surviving, more efficient firms would bid for the remaining bids not captured by the Mexican exports -- all Mexican exports, not just the additional Mexican exports, would benefit from the export subsidies.

A U.S. producer states that the real producer price index for fabricated automotive glass was below 100 before the imposition of the CVD order but jumped to over 110 after the CVD order was put into place.[41] This decrease in Mexican imports and its affect on pricing levels very well may indicate what the effect an increase in Mexican imports will have by temporarily depressing prices in the fabricated automotive glass market as firms adjust and seek to win bids to maintain their capacity utilization. This adjustment process will continue until some marginal assets are removed from production and price levels recover so that companies can again earn "normal" profits.[42] This process may continue for a period of years as firms take losses or suffer low profits for a while hoping prices will recover.

As discussed earlier, the total demand for fabricated glass is very inelastic – estimated by ITC economists to be less than .1. Lower bid prices will not result in significantly higher sales, rather lower prices will result in lower total revenues for the entire industry.

Present State of the Domestic Industry and Its Ability to Withstand Changes in the Marketplace

Condition of the U.S. Industry

When assessing the effects that revocation of the duty would have on the U.S. industry, the present condition of the U.S. industry needs to considered. Total consumption of fabricated auto glass by volume has steadily increased from 1987 to 1989 rising by 12.7% over the

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[40](...continued)
effect as customers, hearing of a low priced shipment, will ask their suppliers to match the price. A single shipment of low priced imports can have a suppressive effect on prices. Supra at A-20.

[41] Prehearing submission at 37.

[42] Normal profits are defined as, "That minimum amount of profit which a firm must acquire in order to induce the firm to remain in operation. This is where all opportunity costs are just covered by total revenue and therefore corresponds to a zero level of profits." MIT Dictionary of Modern Economics, 1986. The concept of opportunity costs includes costs of variable and fixed assets as well as the premium charged for risk taking and the costs of using the owner's capital. Accounting measures of profit, such as operating profit do not include the premium charged for risk taking and the costs of using the owner's capital. If long run average accounting profits do not equal or exceed the risk taking and costs of using the owner's capital, owners of capital will invest elsewhere.

period.[43] Open market consumption by volume has even more rapidly resulting in a * * * increase from 1987 to 1989. Open market consumption as a percent of total consumption has also risen from * * * in 1987 to * * * in 1989. However during this period of increased consumption, total U.S. shipments by volume have fluctuated during the period but fell by nearly 10% from 1987 to 1989. This has resulted in a sharp drop in U.S. market share from 79.6% in 1987 to 72.8% in 1989 by domestic U.S. fabricated auto glass producers. In open market shipments, U.S. producers managed a slight * * * increase in shipments but still faced a loss of market share from * * * of the U.S. market in 1987 to * * * in 1989 in a growing market. Most of the increase in import penetration from 1987 to 1989 was due to imports from South Africa, Germany, Canada, Australia and Korea.[44] Imports of fabricated auto glass from Mexico by volume increased slightly from 1987 to 1989 but did not recover to 1984 and 1985 levels.

Unit prices of fabricated auto glass have also fell precipitously by 30% from 1987 to 1989 almost reaching 1985 unit values.[45] How much of this drop in unit values is due to a change in the product mix is unclear but the drop also coincides with a surge in import market penetration in 1989.[46] Coinciding with the U.S. consumption which rose by 12.7% from 1987 to 1989, U.S. fabricated auto glass productive capacity rose by 13.6% during the same period.[47] However, U.S. production, reflecting the loss in U.S. market share by producers, rose only by 5.4% during the same period resulting in capacity utilization dropping from 74.3% in 1987 to 68.9% in 1989.[48]

Despite increases in employment, hours worked, production and sales, the U.S. fabricated auto glass faced a unmistakable decline in operating income from 1987 to 1989; their cost of goods sold, as a share of net sales rose significantly from 77.1% in 1987 to 83.2% in 1989.[49] Increasing labor costs per square foot of both laminated and tempered auto glass as well as declining capacity utilization by U.S. producers can explain some of the cost increases experienced by U.S. producers.[50] However, the successful increase in import penetration of

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[43] Supra at 8 and 9.
[44] Supra at tables 28 to 30.
[45] Supra at table 28.
[46] It is difficult to examine any price trends for the period of investigation for fabricated auto glass given the nature of the bid process and the custom designing of glass for each model. However, U.S. producers assert that real prices for both tempered and laminated automotive glass have fallen and that the U.S. industry has suffered through a long period of price suppression. Prehearing submission at 37-38; Supra at A-20.
[47] The value of U.S. automotive auto glass producers assets, fixed and total, rose steadily from 1987 to 1989 reflecting new investment in increased U.S. productive capacity in anticipation of supply the increased U.S. consumption of fabricated auto glass. Capital expenditures by U.S. producers was primarily for machinery, equipment and fixtures indicating an expansion of production lines.
[48] Supra at 11. Imports, through low pricing, may very well have won bids that U.S. producers expected to win.
[49] Supra at 11 and 21 and at table 38.
[50] Supra at 11 and at tables 13 and 14.

the U.S. market from 1987 to 1989 indicates that U.S. producers lost a considerable number of bids to lower priced imports and faced downward price pressure in the bidding process thereby further narrowing operating profit margins available to U.S. firms in 1987. U.S. firms, faced with increasing import price competition from 1987 to 1989, had to either lower their prices to win bids in order to maintain their capacity utilization or lose some bids on the basis of price and settle for lower capacity utilization rates (and higher fixed per unit costs) in their production facilities. Either choice resulted in lower operating profits[51] as illustrated in table 16 of the report.[52] Nearly all U.S. fabricated automotive glass producers, captive and noncaptive, experienced a sharp drop in their operating income.[53]

Despite increasing consumption of fabricated auto glass from 1987 to 1989, U.S. auto glass producers have not improved their competitive position in the U.S. market. Despite increasing U.S. productive capacity to accommodate this increased demand for fabricated auto glass, U.S. auto glass producers have lost most or nearly all of the additional demand to import competition. In addition, U.S. producers have suffered declining operating incomes during the period of increasing demand. This loss of competitive position by U.S. producers in the U.S. fabricated autoglass market occurred during a period in which all imports were fairly traded.[54]

Effects of Mexican imports on the U.S. Industry

Therefore, everything else being equal, the entry or offering of Mexican fabricated autoglass at lower subsidized prices in the U.S. fabricated autoglass market will: 1) further reduce the market share of U.S. producers if U.S. producers do not compete with Mexican imports on a bid price basis; or 2) reduce bid prices if U.S. producers attempt to maintain their market share by competing on price. Either strategy by U.S. producers will result in declines in U.S. revenues.[55] If U.S. producers lose market share to Mexican imports, U.S. producers may try to maintain their profit levels but would reduce their relative levels of production, shipments, employment and perhaps investment.[56] If U.S. producers attempt to maintain their U.S.

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[51] Operating profits cover fixed and variable costs of production as depreciation is included as part of the cost of goods sold.

[52] In a footnote to table 19, * * *.

[53] This would suggest that the captive market is not totally immune from the influence of imports in the open market bidding process. This is supported by the earlier discussion of Ford's pricing process with its automotive glass division. * * *.

[54] By assumption from the discussion earlier. Other than an outstanding order on Mexican autoglass imports, which were found to not be benefiting from subsidies in 1986, no other CVD or dumping orders are on imports of fabricated autoglass from any other country.

[55] That is, unless, increased Mexican imports completely displace imports from other countries.

[56] U.S. producers may terminate some of their less profitable accounts or release some of their less productive factors -- capital equipment or labor. U.S. producers may also chose to cut back on new or replacement investment in a downsizing of the industry in order to maintain current profit levels. This may or may not be advisable in an industry such as the autoglass industry with economies of scale in production and high fixed costs; spreading fixed costs over fewer

(continued...)

market share, which they have not done from 1987 to 1989, they may be able to maintain relative production, shipments, employment and capacity utilization but would incur declining profit levels and cash flows thereby impairing their ability to invest and do research and development.

Given the deteriorating competitive position of the U.S. fabricated auto glass industry from 1987 to 1989, which was a period of growing consumption, an increase in subsidized Mexican imports, of the magnitude estimated earlier, entering the U.S. market would have crippling and injurious effects on the U.S. industry. As explained earlier, the increase in Mexican imports would not begin immediately upon revocation of the outstanding order but would immediately threaten the U.S. industry with material injury and eventually injure the U.S. industry within two or three years as Mexican producers bring new production lines and plants on line.[57] Domestic producers would be immediately be affected upon revocation of the order as loss of bids to Mexican importers would affect U.S. investment decisions. As the increased Mexican import begin to enter the U.S. market, the loss of these sales would begin to affect U.S. capacity utilization, profits, sales, and employment.

U.S. automotive auto glass producers describe the possible effects of revocation of the outstanding orders:

* *

Witnesses for the Mexican producers argue differently, asserting there would be no impact on the U.S. industry upon revocation of the outstanding order.[58] In addition, they argue that there is very limited competition between U.S. and Mexican glass producers as Mexican import volumes are small and are captively sourced by auto companies in the United States.[59] They also state that the demand for automotive glass should be strong due to technological advances in auto manufacturing requiring more glass being used in future automobiles and the expectations that new car sales will increase.[60] Parties representing Mexican interests note that the increase in U.S. automotive glass production capacity indicates expected increases in future demand for automotive glass.[61]

As explained earlier, I believe that there is a "leakage" between captive and open

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[56](...continued)
units of production will raise per unit costs and may squeeze profit levels if prices do not rise or productivity does not increase.

[57] * * *.

[58] Supra at A-20.

[59] Prehearing submission at 6. They also argue that imports of CRINAMEX along with other small, non-OE producers occupy a niche market and do not harm the U.S. industry. Prehearing submission at 22-23; posthearing submission at 24.

[60] Prehearing submission at 18.

[61] Prehearing submission at 15-17; posthearing submission at 2-6.

market bid price offers. Ford and Chrysler's methods of negotiating bids with their captive producers illustrates this.[62] In addition, Ford's new investment in Auto Vidro already reduces the relative level of autoglass productive capacity in the United States. Ford's internal sourcing allows its Mexican production to displace external vendors and Ford's own internal production in the United States. * * *.

As to increased future demand for fabricated autoglass to absorb any increased Mexican imports, I note that several U.S. fabricated automotive glass producers dispute any optimistic forecasts of significant increased future demand for autos[63]. The U.S. also had declining shipments during a period of market growth as U.S. producers lost U.S. market share to other imports during the period of investigation; subsidized imports from Mexico would do more of the same.

I also note that Mexican fabricated autoglass is not so dissimilar to the U.S. like product so as to have no impact on the U.S. market upon revocation of the outstanding order. Rather, it has been estimated that Mexican fabricated autoglass is highly substitutable for U.S. produced fabricated autoglass. There is also no indication that there has been a radical restructuring of the U.S. industry or a demise of the U.S. industry since imposition of the order so that revocation would have no effect. It also has not been argued that there has been a fundamental relocation of certain production operations of the fabricated glass industry due to technological improvements in labor or capital input ratios in the production of fabricated auto glass so that revocation of the order would have no effect on the U.S. industry. It has not been argued that supplies are tight in the United States and that increased Mexican imports would merely fill excess demand; the bid process would ensure that U.S. companies can expand their capacity to accommodate any increased demand.

Conclusion

Given the deteriorating competitive position of the U.S. fabricated auto glass industry during a period of growing consumption from 1987 to 1989, an increase in subsidized Mexican imports, of the magnitude estimated earlier, entering the U.S. market would have crippling and injurious impacts on the U.S. industry. The increase in Mexican imports would not begin immediately upon revocation of the outstanding order but would immediately threaten the U.S. industry with material injury and then injure the U.S. industry within two or three years as Mexican producers bring new production lines and plants on line.

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[62] Supra at 40-42.
[63] Supra at A-20.

APPENDIX A

THE COMMISSION'S NOTICE OF INVESTIGATION

[Investigation No. 332-286]

Conditions of Competition Between U.S. and Mexican Fabricated Automotive Glass in U.S. Market

AGENCY: United States International Trade Commission.

ACTION: Institution of investigation and scheduling of a hearing.

SUMMARY: Following receipt on December 27, 1989, of a request from the U.S. Trade Representative (USTR), the Commission instituted investigation No. 332-286 under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)). As requested by USTR, the Commission will report to the President on the conditions of competition in the U.S. market between U.S. and Mexican fabricated automotive glass—specifically whether (1) an industry in the United States would be materially injured, or would be threatened with material injury, or (2) the establishment of an industry in the United States would be materially retarded if the outstanding countervailing duty order on fabricated automotive glass from Mexico (50 FR 1906) were revoked by the Department of Commerce. In conducting its investigation, the Commission, as requested by USTR, will inquire into the following elements: (i) the volume of imports of the merchandise that is the subject of investigation, (ii) the effect of imports of the merchandise on prices in the United States for like products and (iii) the impact of such imports on domestic producers of like products. As indicated by USTR, the terms used above are defined at 19 U.S.C. 1677. Fabricated automotive glass is provided for in subheadings 7007.11.00, 7007.19.00, 7007.21.10, and 7007.21.50 of the Harmonized Tariff Schedule of the United States (HTS).[1] In accordance with USTR's request, the Commission will submit its report to the President within 150 days of the date of the request.

EFFECTIVE DATE: December 26, 1989.

FOR FURTHER INFORMATION CONTACT: Bruce Cates (202-252-1187), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-252-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-252-1000.

SUPPLEMENTARY INFORMATION:

Public Hearing

The Commission will hold a public hearing in connection with this investigation beginning at 9:30 a.m. on April 12, 1990, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission not later than the close of business on March 27, 1990. All persons desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on March 29, 1990, at the U.S. International Trade Commission Building. Any written materials submitted at the hearing for which confidential treatment is sought must be filed in accordance with the requirements of § 201.6 of the Commission's Rules of Practice and Procedure (19 CFR 201.6)

Written Submissions

Interested persons are invited to submit written statements in the form of one prehearing and/or one posthearing statement (as described below) concerning the investigation, in lieu of, or in addition to, appearances at the public hearing. Commercial or financial information that a submitter desires that the Commission treat as confidential must be submitted on separate sheets of paper, each clearly marked "Confidential Business Information" at the top. All submissions requesting confidential treatment must conform with the requirements of § 201.6 of the Commission's rules (19 CFR 201.6). Following submission of its report to the President, the Commission will transmit to USTR the information that provided the basis for the report (including confidential business information). USTR has indicated that it will forward the information to the Department of Commerce, which may release some confidential information under protective order.

A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the Commission's rules (19 CFR 201.8). All written submissions except for confidential business information will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary.

Persons who intend to submit a written statement to the Commission should so inform the Secretary of the Commission no later than the close of business on March 27, 1990. To be assured of consideration by the Commission, a prehearing statement should be submitted not later than the close of business on April 6, 1990. Posthearing statements must be submitted not later than the close of business on April 18, 1990.

The Secretary will prepare a service list containing the names and addresses of all persons, or their representatives, who have requested an opportunity to appear at the public hearing or who have indicated an intention to submit a written statement. The service list will be made available to the public on March 29, 1990. The Commission encourages all persons or counsel therefor filing a written statement with the Commission to serve a nonconfidential copy of such statement on each person on the service list.

Issued: Janaury 10, 1990.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 90-1127 Filed 1-17-90; 8:45 am]

BILLING CODE 7020-02-M

[1] The subject glass is classified for tariff purposes as safety glass consisting of toughened (tempered) or laminated glass, of size and shape suitable for incorporation in vehicles, aircraft, spacecraft or vessels; this investigation covers such glass for motor vehicles of chapter 87 of the HTS.

APPENDIX B

LETTER FROM USTR REQUESTING THE INVESTIGATION

DOCKET

THE UNITED STATES TRADE REPRESENTATIVE
Executive Office of the President
Washington, D.C. 20506

DEC 19

The Honorable Anne E. Brunsdale
Chairman
U.S. International Trade Commission
500 E Street, S.W.
Washington, D.C. 20436

Dear Chairman Brunsdale:

Pursuant to the authority of section 332(g) of the Tariff Act of 1930 (the "Act") (which the President has delegated to the U.S. Trade Representative), and at the urging of the Secretary of Commerce, I request that the U.S. International Trade Commission conduct an investigation into, and report to the President on the conditions of competition between U.S. and Mexican fabricated automotive glass in the United States market, specifically whether (1) an industry in the United States would be materially injured, or would be threatened with material injury, or (2) the establishment of an industry in the United States would be materially retarded if the outstanding countervailing duty order on Fabricated Automotive Glass from Mexico (50 Fed. Reg. 1906) were revoked by the Department of Commerce.

At the time the order on fabricated automotive glass was issued, Mexico was not entitled to an injury test under U.S. and international law. Accordingly, countervailing duties were imposed upon these products despite the absence of a determination that these entries were harming the relevant domestic industry. On August 24, 1986, Mexico acceded to the General Agreement on Tariffs and Trade ("GATT"). Consistent with its earlier positions in Fasteners from India (47 Fed. Reg. 44129 and Wire Rod from Trinidad and Tobago (50 Fed. Reg. 19561), the Department of Commerce has concluded that it lacks the authority under Article VI of the GATT and section 303(a)(2) of the Act, to levy countervailing duties on imports of Mexican fabricated automotive glass if there has not been a prior affirmative injury determination. Therefore, in order to fulfill our international obligations, and to ensure the continued enforcement of America's unfair trade laws, the Department of Commerce has urged me to make this request to the Commission.

To determine whether there is sufficient interest in the investigation, the Commission may, if necessary, after institution of the investigation, publish a notice in the Federal Register that invites any person expressing an interest in the continuation of the investigation to provide information regarding the conditions of competition in the U.S. market between U.S. and Mexican fabricated automotive glass. If the Commission concludes, on initial review, that there is insufficient interest, the Commission may so advise and terminate the investigation.

In investigating whether revocation of the order would result in a U.S. industry being materially injured or threatened with material injury, or the establishment of an industry being materially retarded, the Commission should inquire into the following elements: (i) the volume of imports of the merchandise that is the subject of investigation, (ii) the effect of imports of the merchandise on prices in the United States for like products and (iii) the impact of such imports on domestic producers of like products. The terms used above are defined at 19 U.S.C. section 1677.

In light of the considerable importance of this investigation to the United States, the Commission should submit its report within 150 days after the receipt of this request. Within ten business days after submitting its report, the Commission should submit the information that provided the basis for the report (including confidential business information) to USTR. In this regard, in accordance with section 332(g) of the Act, as amended by section 1613 of the Omnibus Trade and Competitiveness Act of 1988, the Commission should inform all parties that may submit information that the Commission considers to be confidential business information that such information will be forwarded by USTR to the Department of Commerce. Any confidential information in the report will be examined by only those officials and employees in the Office of the U.S. Trade Representative and the Department of Commerce who are directly involved in reviewing the Commission's report. In addition, Commerce may release some confidential information under protective order.

In accordance with USTR policy, I direct you to mark as "confidential" such portions of the Commission's report and its working papers as my Office will identify in a classification guide. Information Security Oversight Office Directive No. 1, section 2001.21 (implementing Executive Order 12356, sections 2.1 and 2.2) requires that classification guides identify or categorize the elements of information that require protection. Accordingly, I request that you provide my Office with an outline of this report as soon as possible. Based on this outline and my Office's knowledge of the information to be covered in the report, a USTR official with original classification authority will provide detailed instructions.

Thank you for your cooperation in this matter.

Sincerely,

Carla A. Hills

APPENDIX C

CALENDAR OF WITNESSES

CALENDAR OF PUBLIC HEARING

Those listed below appeared as witnesses at the International Trade Commission's hearing:

Subject	Conditions of Competition Between U.S. and Mexican Fabricated Automotive Glass in the U.S. Market
Inv. No.	332-286
Date and Time:	April 12, 1990 - 9:30 a.m.

Sessions were held in connection with the investigation in the Main Hearing Room 101, United States International Trade Commission, 500 E Street, S.W., in Washington, D.C.

In Opposition to Revocation of the Countervailing Duty Order

Stewart and Stewart
Washington, D.C.
on behalf of

PPG Industries, Incorporated

John C. Reichenbach, Jr., Director, Industry and Business Analysis, Glass Group PPG Industries, Incorporated

James L. Polak, Director, Marketing and Development, Automotive OEM Glass, Glass Group PPG Industries, Incorporated

Terence P. Stewart)
David Scott Nance)--OF COUNSEL
Stephen Vastagh)

In Support of Revocation of the
Countervailing Duty Order

Brownstein, Zeidman and Schomer
Washington, D.C.
on behalf of

Vitro Flex, S.A. ("Vitro Flex")

Ellis Nutall, Finance Administrative Manager

Cristales Inastillables de Mexico, S.A.
("CRINAMEX")

Globe Amerada Glass

Marvin Weitzenfeld, Chief, Financial Officer

Irwin P. Altschuler)
)--OF COUNSEL
David R. Amerine)

Ford Motor Company
Dearborn, Michigan

M.S. Evelev, Associate Counsel

Jerry Beck, Business Planning Associate

-end-

APPENDIX D

COMMERCE'S FINAL DETERMINATION

[C-201-406]

Final Affirmative Countervailing Duty Determination and Countervailing Duty Order: Fabricated Automotive Glass From Mexico

AGENCY: Import Administration, International Trade Administration, Commerce.

ACTION: Notice.

SUMMARY: We determine that certain benefits which constitute bounties or grants within the meaning of the countervailing duty law are being provided to manufacturers or exporters in Mexico of fabricated automotive glass, except for fabricated automotive glass manufactured and exported by L-N Safety Glass. The net bounty or grant is 4.68 percent *ad valorem* for all manufacturers and exporters except L-N Safety Glass. We determine that no benefits which constitute bounties or grants are being provided with respect to fabricated automotive glass manufactured and exported by L-N Safety Glass. L-N Safety Glass, therefore, is excluded. We are directing the U.S. Customs Service to suspend liquidation of all entries of fabricated automotive glass from Mexico (except that manufactured and exported by L-N Safety Glass) which are entered, or withdrawn from warehouse, for consumption, and to require a cash deposit or bond on this merchandise in the amounts equal to the estimated net bounty or grant.

EFFECTIVE DATE: January 14, 1985.

FOR FURTHER INFORMATION CONTACT: Kenneth Haldenstein or Vince Kane, Office of Investigations, Import Administration, Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230, telephone (202) 377-4136 or 5414.

SUPPLEMENTARY INFORMATION:

Final Determination and Order

Based upon our investigation, we determine that certain benefits which constitute bounties or grants within the meaning of section 303 of the Tariff Act of 1930, as amended (the Act), are being provided to manufacturers or exporters in Mexico of fabricated automotive glass, as described in the "Scope of Investigation" section of this notice. The following programs are found to confer bounties or grants:

- Fund for the Promotion of Exports of Mexican Manufactured Products (FOMEX); and
- Preferential Federal Tax Incentives (CEPROFI).

We determine the bounty or grant to be the rate specified in the "Suspension of Liquidation" section of this notice.

Case History

On July 31, 1984, we received a petition from PPG Industries, Inc. Because certain U.S. fabricated automotive glass manufacturers indicated opposition to the investigation, we sought information to determine whether the petition was filed on behalf of the U.S. fabricated automotive glass industry, as required by section 702(b)(1) of the Act (19 U.S.C. 1671a(b)(1)). As authorized by section 771(4)(B) of the Act (19 U.S.C. 1677(4)(B), we excluded Ford and Libbey-Owens-Ford from consideration as part of the domestic industry because they are major importers with substantial ownership interests in the exporting companies. Most of the U.S. manufacturers of fabricated automotive glass who are not excluded support the petition. In addition, manufacturers accounting for a major proportion of U.S. production, after exclusion of these companies, support the petition also. Thus, we determine that the petitioner has standing.

In compliance with the filing requirements of section 355.26 of the Commerce Regulations (19 CFR 355.26), the petition alleges that manufacturers or exporters in Mexico of fabricated automotive glass receive bounties or grants within the meaning of section 303 of the Act.

Since Mexico is not a "country under the Agreement" within the meaning of section 701(b) of the Act, section 303 of the Act applies to this investigation. Although the subject merchandise is nondutiable, there are no "international obligations" within the meaning of section 303(a)(2) of the Act which require an injury determination for nondutiable merchandise from Mexico. Therefore, the domestic industry is not required to allege that, and the U.S. International Trade Commission is not required to determine whether, imports of these products cause or threaten to cause material injury to a U.S. industry.

We presented a questionnaire concerning the allegations to the Government of Mexico in Washington, D.C. on September 6, 1984. On October 9, 1984, we received responses to the questionnaire. We received a supplemental response on October 17, 1984. A preliminary affirmative determination was issued in this investigation on October 24, 1984, 49 FR 43984 (November 1, 1984). Verification of the responses was conducted in Mexico between November 26 and December 7, 1984. A public hearing was held on December 18, 1984, requested by petitioner and by L-N Safety Glass.

Scope of Investigation

The merchandise covered by this investigation is "fabricated automotive glass," specifically, laminated automotive glass, currently classified in item 544.4120 of the *Tariff Schedules of the United States Annotated* (TSUSA), and tempered automotive glass, currently classified under TSUSA item number 544.3100.

There are three known manufacturers which export fabricated automotive glass from Mexico to the United States. We have received information from the Government of Mexico regarding Vitro Flex, S.A. (Vitro Flex), Cristales Inastillables de Mexico (Crinamex), S.A., and L-N Safety Glass, S.A. de C.V.

The period for which we are measuring benefits is the most recent year for which we have complete data, calendar year 1983. In their responses, the Government of Mexico and respondents provided data for the applicable period.

Analysis of Programs

Throughout this notice, we have applied to the facts of the current investigation general principles described in detail in the Subsidies Appendix of the *Final Affirmative Countervailing Duty Determination and Countervailing Duty Order: Cold-Rolled Carbon Steel Flat-Rolled Products from Argentina;* 49 F.R. 18006 (April 26, 1984). Following the Subsidies Appendix, we have used the national average commercial rate as the benchmark for short-term peso-denominated borrowing. For this purpose, we chose the effective rate published monthly by the Banco de Mexico in the *Indicadores Economicos* ("IE rate") because we verified that the nominal rates charged on FOMEX pre-export loans granted to the fabricated automotive glass companies are the effective rates. These rates are the weighted averages of the rates charged by commercial banks on short-term peso loans.

For short-term dollar-denominated loans, the benchmark used was the quarterly U.S. national weighted average rates for commercial and industrial short-term loans with maturities of less than one year, as published in the *Federal Reserve Bulletin* ("Federal Reserve rate").

Based upon our analysis of the petition and the responses to our questionnaire, we determine the following:

I. Programs Determined to Confer Bounties or Grants

We determine that bounties or grants are being provided to manufacturers or exporters in Mexico of fabricated automotive glass under the following programs:

A. FOMEX

FOMEX is a trust established by the Government of Mexico to promote the manufacture and sale of exported products. The fund is administered by the Mexican Treasury Department, with the Bank of Mexico acting as the trustee. On July 27, 1983, FOMEX was formally incorporated into the National Bank of Foreign Trade (NBFT). The NBFT administers the financing of FOMEX loans through financial institutions, which establish contracts for lines of credit with manufacturers and exporters.

In order for a company to be eligible for FOMEX financing for exports, the following requirements must be met: (1) The product to be manufactured must be included on a list made public by FOMEX; (2) the company must have majority of Mexican capital; (3) the articles to be exported must have a minimum of 30 percent national content in direct production costs; (4) loans granted for pre-export must be in Mexican currency while loans for export sales are established in U.S. dollars or any other foreign currency acceptable to the Bank of Mexico; and (5) the exporter must carry insurance against commercial risks to the extent of the loans. During 1983, the maximum annual interest rate for FOMEX pre-export financing was 8 percent and for FOMEX export financing 6 percent.

Prior to our preliminary determination, in April 1984, the FOMEX interest rates were increased to 7.1 percent for export financing and 19.3 percent for pre-export financing. For export loans we have taken this program-wide change, made prior to the preliminary determination, into account for duty deposit purposes. We lacked sufficient data to do so for pre-export loans. Therefore, we used for our review period of export loans the period April 1, 1984 to June 30, 1984, which was the period subsequent to the program-wide change for which verified data are available. During April-June 1984, Vitro Flex and Crinamex received short-term export financing from FOMEX for exports to the U.S. of the subject merchandise. During 1983 Vitro Flex and Crinamex received pre-export financing from FOMEX for exports to the United States of the subject merchandise.

Since FOMEX financing provides loans for export-related purposes at interest rates less than those for comparable commercially available loans, we determine that this program confers a bounty or grant upon the exportation of fabricated automotive glass.

We used as our benchmark, for purposes of calculating the bounty or grant, the "IE" rate for peso-denominated loans and the Federal Reserve rate for dollar-denominated loans, as described *supra*. We allocated the benefit over the value of U.S. exports of fabricated automotive glass and calculated a weighted-average bounty or grant in the amount of 3.58 percent *ad valorem*.

B. CEPROFI

CEPROFIs are tax credits used to promote National Development Plan (NDP) goals, which include increased employment, encouragement of regional decentralization, and industrial development, particularly of small- and medium-sized firms.

CEPROFI certificates are tax certificates of fixed value which may be used for a five-year period to pay

federal taxes. Certain CEPROFI certificates are granted for carrying out investmentin "priority" industrial activities; others are available to all industries on equal terms.

Vitro Flex received CEPROFIs for carrying out investment in priority industrial activities. These CEPROFIs were for investment to increase productivity. Because this type of CEPROFI is limited to a specific group of industries or to companies located in specific regions, we determine that this program confers a bounty or grant.

Article 25 of the decree authorizing the issuance of CEPROFIs, published in the *Diario Oficial de la Federacion* (Diario Oficial) on March 6, 1979, provides for a 4 percent supervision fee. We determine that the 4 percent supervision fee is "paid in order to qualify for, or to receive" the CEPROFIs, and is therefore an allowable offset from the gross bounty or grant, as provided in section 771(6)(A) of the Act. Therefore, the benefit provided by CEPROFIs is the amount of the certificate received less the supervision fee.

We allocated the CEPROFI benefit over the total sales of the subject merchandise and determined a weighted-average bounty or grant in the amount of 1.10 percent *ad valorem*.

II. Programs Determined Not to Confer Bounties or Grants

A. Subsidized Glass Inputs

Petitioner alleged that manufacturers of the subject merchandise received benefits passed on from raw material suppliers that received assistance from the Government of Mexico. Specifically, petitioner contends that producers of raw materials used as inputs in float glass received preferential loans from the Mexican Trust for Non-Metallic minerals. The benefits arising from these loans were then allegedly passed on to intermediary float glass producers and then passed on again to the producers of fabricated automotive glass.

We found during verification that the prices paid by automotive glass producers for Mexican supplied float glass are not less than prices that would otherwise be paid for the input in an arm's-length transaction. Therefore, we conclude that no benefit has been bestowed on Mexican producers of fabricated automotive glass through their purchase of Mexican-produced float glass. As no benefit is conferred at this step in the production chain, we see no need to go back in the production chain to examine transactions between Mexican float glass producers and their raw material suppliers.

B. Provision of Loans and Funds to Cover Operating Losses from Vitro S.A. to its Subsidiaries

Subsequent to the preliminary determination, petitioner alleged that Vitro Flex and Crinamex receive countervailable benefits in the form of loans and the provision of funds to cover operating losses from Vitro, S.A., a parent company. The transfer of funds within a commercial enterprise, absent government direction, is not countervailable. Therefore, we determine that this program did not confer a bounty or grant on Vitro Flex or crinamex.

C. National Preinvestment Fund for Studies and Projects (FONEP)

FONEP finances economic and technical feasibility studies as well as basic and detailed engineering projects. FONEP loans have been determined not to confer bounties or grants. (*See Final Affirmative Countervailing Duty Determination on Oil Country Tubular Goods from Mexico*, 49 FR 47055, November 30, 1984).

III. Programs Determined Not To Be Used

We determine that the following programs have not been used by manufacturers or exporters of fabricated automotive glass.

A. Article 94 Loans

Under section II of the Article 94 of the *General Law of Credit Institutions and Auxiliary Organizations* (the Banking Law), the Bank of Mexico establishes channels of credit to different sectors of economic activity. There are 12 categories of credit under section II.

Most categories carry their own maximum interest rate which is set by the Bank of Mexico. Loans granted under category 12 are targeted to exports of manufactured products. The maximum interest rate under this category is 8 percent. These loans were not used by the companies under investigation.

B. FOMEX Loans to U.S. Importers

U.S. customers of Mexican fabricated automotive glass were alleged to have received FOMEX loans. No U.S. customers of Mexican fabricated automotive glass received FOMEX loans.

C. Trust for Industrial Parks, Cities, and Commercial Centers (FIDEIN)

This program is aimed at developing industrial parks and cities. The program was not used by the companies under investigation.

D. Fondo Nacional de Fomento Industrial (FOMIN)

FOMIN operates as trust fund, providing funding to certain small- and medium-sized companies by either buying stock or providing loans at rates below those of commercial lending institutions. This program was not used by the companies under investigation.

E. Preferential Prices for Natural Gas, Oil and Electricity

Prices for natural gas, oil, and electricity in Mexico are set by the Mexican government; priority industries may be eligible for discounts of up to 30 percent. The fabricated automotive glass industry has not received price discounts for these items.

F. Fund for Industrial Development (FONEI)

FONEI is a specialized financial development fund, administered by the Bank of Mexico, which grants long-term credit at below-market rates for the creation, expansion or modernization of enterprises, in order to foster industrial decentralization and the efficient production of goods capable of competing in the international market. FONEI loans are available under various programs having different eligibility requirements. This program was not used by the companies under investigation.

G. Import Duty Reductions and Exemptions

Manufacturers in Mexico may receive import duty reductions or exemptions on equipment used for production. This program was not used by the companies under investigation.

H. Accelerated Depreciation Allowances

Certain manufacturers in Mexico may benefit from federal income tax reductions through accelerated depreciation. This program was not used by the companies under investigation.

I. Guarantee and Development Fund for Medium and Small Industries (FOGAIN)

The FOGAIN program provides preferential financing at interest rates below prevailing commercial rates to all small- and medium-sized firms in Mexico. Interest rates will vary depending upon: (a) Whether a small- or medium-sized business has a designated priority status, and (b) the geographical location of the business. This program was not used by manufacturers of the subject merchandise.

J. Government Financed Technology Development

The National Development Plan provides grants to help firms acquire technology for new plants. These grants have not been used by manufacturers of the subject merchandise.

K. Preferential State Investment Incentives

Mexican state or local government agencies may provide such benefits as tax incentives and infrastructure aid to Mexican companies. This assistance has not been used by manufacturers of the subject merchandise.

L. Mexican Institute of Foreign Trade (IMCE)

IMCE promotes Mexican foreign trade with trade fairs, missions and technical assistance to exporters. This assistance has not been used by manufacturers of the subject merchandise.

M. New Exchange Risks Trust Fund Program (FICORCA)

Petitioner alleged that producers of the subject merchandise benefitted from debt rescheduling under this program, which began on February 15, 1984, and covers foreign credits incurred after December 20, 1982. This program has not been used by manufacturers of the subject merchandise.

N. Certificado de Devolucion de Impuesto (CEDI)

Subsequent to the preliminary determination, petitioner alleged that Vitro Flex and Crinamex received countervailable benefits because CEDIs have been received by an export consortium which is related to them. These CEDIs were alleged to have been provided under a special "extra-CEDI" program available to export consortia, even though the regular CEDI program was suspended on August 25, 1982.

We found at verification that this export consortium had no dealings with Vitro Flex and Crinamex during the period of review. Therefore, we determine that CEDIs were not used by the companies under investigation.

O. Bancomext Loans

Since the initiation of this investigation we have found loans from Bancomext to provide countervailable benefits in the Final Affirmative Countervailing Duty Determination on Lime from Mexico. We are therefore including this program in this final determination. We verified that this program was not used by the companies under investigation.

P. Loans from Nacional Financiera, S.A. (NAFINSA)

Loans from NAFINSA (a government bank) have been found countervailable in past investigations but we failed to include this program among those listed on the initiation of this investigation. We nevertheless investigated NAFINSA loans and are including this program in the determination. We verified that this program was not used by the companies under investigation.

Petitioner's Comments

Comment 1: Petitioner contends that CEDIs have been received by Fomento de Comercio Exterior (FOMEXPORT), a member of the Vitro Group, resulting in a countervailable benefit to Vitro Flex and Crinamex.

DOC Response: We verified that FOMEXPORT had no dealings with Vitro Flex or Crinamex during the period of investigation. Therefore, any possible benefits received by it would not result in a bounty or grant being conferred on Vitro Flex or Crinamex.

Comment 2: Petitioner argues that the DOC's decision not to initiate an investigation of the earlier FICORCA program, involving foreign debt incurred before December 20, 1982, was a final determination. Petitioner adds, however, that if the decision is not final, the DOC should find FICORCA not to be generally available and therefore countervailable under the Act. Petitioner further adds that even if the program is generally available, the holding in *Bethlehem Steel Corporation* v. *United States*, 8 CIT ——, 590 F. Supp. 1237 (1984) dictates that benefits provided under FICORCA should be considered countervailable.

DOC Response: We did not initiate an investigation of the FICORCA program involving rescheduling of foreign debt incurred before December 20, 1982, (the "earlier" FICORCA program) because we had found it to be a generally available domestic program in *Unprocessed Float Glass from Mexico; Countervailing Duty Determination*, 49 FR 23097, 23099 (June 4, 1984). Absent new evidence or changed circumstances, we do not reinvestigate programs found not to be countervailable in earlier investigations. The information that petitioner presented does not indicate that the earlier FICORCA program is not generally to all Mexican companies with foreign indebtedness, but merely indicates that relatively few Mexican companies have incurred foreign debt and are thus eligible for the program. Petitioner has provided no evidence of government selection of participants, which is a criterion for countervailing programs that otherwise appear to be generally avaiable. As for petitioner's contention that the Court of International Trade held in *Bethlehem* that generally available benefits are countervailable, we disagree. The CIT's comments on general availability in that case are *dicta* and do not affect the court's holding in *Carlisle Tire and Rubber Co.* v. *United States*, 564 F. Supp. 834 (1983), which approves our general availability test.

Comment 3: Petitioner contends that the respondents have failed to provide certain information requested in the DOC's questionnaire and that the DOC should use the best information otherwise available for purpose of making a final determination.

DOC Response: Respondents have submitted all necessary information in time to be considered in this final determination and have been cooperative with this investigation. All information submitted has been verified. Therefore, we are using the verified information from the responses as the basis for our final determination, as required by section 776 of the Tariff Act of 1930, as amended. 19 U.S.C. 1677e.

Comment 4: Petitioner contends that Vitro Flex and Crinamex receive countervailable benefits through the provision of funds from parent company Vitro, S.A. to cover operating losses. They provided evidence which they claim indicates that Vitro Flex and Crinamex are selling in the United States at less their cost of production. Petitioner further argues that Vitro Flex and Crinamex receive loans from Vitro S.A. that conferred countervailable benefits on Vitro Flex and Crinamex.

DOC Response: The provision of loans or other funds between related companies, absent evidence of government direction, is presumptively governed by commercial considerations and thus is not countervailable.

Comment 5: Petitioner argues that, in determining whether subsidized inputs confer a benefit on fabricated automotive glass producers, the DOC should compare the prices charged respondents by their Mexican float glass suppliers with the suppliers' price to unrelated customers. This comparison, they argue, would show whether the float glass companies sell more cheaply to their related customers and in so doing, could be passing on subsidies.

DOC Response: We disagree. The correct comparison for determining whether a benefit is conferred on the automotive float glass producers is between prices charged those producers by different suppliers of the input in

question. If at least one of those suppliers has not been found to be subsidized and the price that supplier is charging for the input is on arm's-length price, then that price is the benchmark for determining whether benefits are passed on to producers of the product under investigation through their purchase of allegedly subsidized. domestically-sourced inputs.

In this case, we found a U.S. company, although related to Vitro Flex and Crinamex, supplied float glass to them at an arm's-length price and that the Mexican suppliers of float glass supplied it above the arms-length price. Since no competitive benefit was conferred on automotive glass companies through their purchases of domestically-produced float glass, the pricing policies of the related float glass producers are of no relevance in this investigation.

Respondents' Comments

Comment 1: Respondents argue that this proceeding should be terminated because PPG does not represent a majority of the domestic industry. Four domestic producers, whose combined output accounts for more than half of total U.S. production, have indicated that they do not support the petition. It is inappropriate, respondents add, to exclude from our definition of the domestic industry Ford and Libbey-Owens-Ford because:

- The share of imports in these companies' total production of the subject product is very small; and
- These two companies account for a major proportion of U.S. production of the subject product.

DOC Response: For the Department to initiate an investigation, the petitioner must file "on behalf of an industry." 19 U.S.C. 1671a(b). We determine that the petitioner has filed on behalf of the U.S. fabricated automotive glass industry. Six of the ten domestic producers support the petition.

Alternatively, to determine industry support in terms of total volume of production, we have exercised our discretion in accordance with section 771(4)(B) of the Act, to exclude from consideration of the industry three domestic producers. Section 771(4)(B) specifies that, under the appropriate circumstances, we may exclude domestic producers that are importers, related to importers, or related to exporters of the product under investigation. 19 U.S.C. 1671(4)(B). The two, Ford and Libbey-Owens-Ford, are importers of fabricated automotive glass from Mexico and are each related to different exporters of the subject product. These companies oppose the petition. Circumstances are appropriate in this case for excluding them because they are the major importers of the subject merchandise and each has a substantial ownership interest in a Mexican exporter. As importers, they would be liable for countervailing duties and they would lose any competitive advantage they receive from importing allegedly subsidized merchandise. As parties related to exporters, they have an interest in preventing the issuance of a countervailing duty order on the subject merchandise. Having excluded these companies, we find that producers accounting for more than 60 percent of the total U.S. production of fabricated automotive glass support the petition. Although Ford's and Libbey-Owens-Ford's imports are a small percentage of their total production, each imports a significant proportion of Mexican exports for fabricated automotive glass to the U.S.

Comment 2: Vitro Flex and Crinamex argue that IMCE trade promotion assistance should be found not to be countervailable in order to be consistent with the DOC's final determination in *Cut Flowers from Mexico.*

DOC Response: Information has not been provided to the Department, either in the *Cut Flowers* investigation or in this investigation, to establish that all IMCE trade promotion programs are non-countervailable in all cases. Only market research studies by IMCE were found not to confer a benefit in *Cut Flowers.* Therefore, the DOC must continue to consider this program in its investigations involving Mexico.

Comment 3: Vitro Flex and Crinamex argue that in arriving at the final determination in this case, the DOC should consistently utilize a given period of time for measuring both CEPROFI and FOMEX benefits received by the Mexican auto glass industry. They further state that the DOC should take into account the fact that effective April 1, 1984, the Government of Mexico increased the interest rates for FOMEX export financing to 7.1 percent, and 19.3 percent for FOMEX pre-export financing.

DOC Response: Our policy is to take into account program-wide changes made before the preliminary determination when we have sufficient data to calculate the updated rate. In this case we had sufficient verified information to use the newer FOMEX interest rates for FOMEX export loans, but not for FOMEX pre-export loans. Thus, we used April-June, 1984, as our review period for FOMEX export loans and 1983 as our review period for FOMEX pre-export loans.

Comment 4 Counsel for Vitro Flex and Crinamex argue that the DOC should exclude from coverage in its final determination Ford original equipment automotive glass, for which they claim PPG does not produce a "like product." They state that PPG does not have a "legitimate, cognizable interest" in such merchandise.

DOC Response: We consider the Ford original equipment automotive glass to be a "like product" to that produced by PPG. Ford's current business decision to use different channels of trade than other U.S. buyers does not dictate a difference concerning PPG's "cognizable interest" in such merchandise.

Comment 5: Counsel for Vitro Flex and Crinamex states that there were no additional charges or expenses, prepaid interest or compensating balances on all non-FOMEX short-term loans to these companies. Therefore, they argue, the DOC should use a nominal benchmark rate in its loan calculations, unless it uses an "accurate" company or industry-specific benchmark.

DOC Response: As explained in the Subsidies Appendix, it is standard Departmental practice to use a country-wide benchmark for short-term loan calculations. In our preliminary determination, we compared a nominal interest rate to a commercially available nominal interest rate. During verification it was determined that, for FOMEX pre-export loans, the nominal interest rate was the effective interest rate. We also found that interest is paid in advance for FOMEX export loans. Therefore, for our final determination, we compared the effective interest rate of FOMEX pre-export and export financing to a commercially available effective interest rate. It is irrelevant to our choice of benchmark in calculating FOMEX loan benefits that there are no charges, compensating balances or prepaid interest on respondents' non-FOMEX loans.

Verification

In accordance with section 776(a) of the Act, we verified the data used in making our final determination. During this verification we followed normal procedures, including meetings and inspection of documents with government officials and on-site inspection of the records and operations of the companies exporting the merchandise under investigation to the United States.

Administrative Procedures

We afforded interested parties an opportunity to present information and written views in accordance with Commerce regulations (19 CFR 355.34(a)). Written views have been

received and considered in reaching this final determination.

Suspension of Liquidation

The suspension of liquidation ordered in our preliminary affirmative determination shall remain in effect, except with respect to fabricated automotive glass manufactured and exported by L-N Safety Glass. The net bounty or grant for duty deposit purposes is 4.68 percent *ad valorem* for all manufacturers and exporters except L-N Safety Glass.

In accordance with section 706(a)(3) of the Act, we are directing the U.S. Customs Service to require a cash deposit in the amount indicated above for each entry of the subject merchandise from Mexico which is entered, or withdrawn from warehouse, for consumption, or or after the date of publication of this notice in the **Federal Register** and to assess countervailing duties in accordance with sections 706(a)(1) and 751 of the Act.

This notice is published pursuant to section 706 of the Act (19 U.S.C. 1671e).

Alan F. Holmer,

Acting Assistant Secretary for Trade Administration.

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APPENDIX E

IMPACT OF IMPORTS ON U.S. PRODUCERS' GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL, DEVELOPMENT AND PRODUCTION EFFORTS AND IMPACT OF IMPOSITION OF THE COUNTERVAILING DUTY AND PROJECTIONS IF REVOKED

The Commission requested U.S. producers to describe and explain the actual and potential negative effects, if any, of imports of fabricated automotive glass from Mexico on their firms' growth, investment, ability to raise capital, development and production efforts. The Commission also requested the producers to provide the impact of the imposition of the countervailing duty and projections if revoked. Their responses are shown below:

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