

Determinations of the Commission in Investigations Nos. 701-TA-152 and 153 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigations

USITC PUBLICATION 1240
APRIL 1982

Determination of the Commission in Investigation No. 731-TA-89 (Preliminary)Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation

UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMISSIONERS

Bill Alberger, Chairman

Michael J. Calhoun, Vice Chairman

Paula Stern

Alfred E. Eckes

Eugene J. Frank

Veronica A. Haggart

Kenneth R. Mason, Secretary to the Commission

This report was prepared by:

Abigail Eltzroth

Laszlo Boszormenyi Howard Gooley Jeffrey Neeley

Vera A. Libeau, Supervisory Investigator

Address all communications to
Office of the Secretary
United States International Trade Commission
Washington, D.C. 20436

C O N T E N T S

	Pag
Determination	
Views of Chairman Bill Alberger, Vice Chairman Michael J. Calhoun, and	_
Commissioners Paula Stern, Alfred E. Eckes, and Veronica A. Haggart	
Additional views of Vice Chairman Michael J. Calhoun	
Views of Commissioner Eugene Frank	- 1
Information obtained in the investigation:	
Introduction	– A–
Other investigations concerning prestressed concrete steel wire	
strand	
The product	
U.S. tariff treatment	– A–
Nature and extent of alleged bounties and grants and alleged sales	
at LTFV:	
Brazi1	
France	
The United Kingdom	
The U.S. market	
U.S. producers	- A-I
Foreign producers: Brazil	۸ 1
France	
The United Kingdom	
	- A-1
Importers: Brazil	۸ 1
France	
The United Kingdom	
The question of alleged material injury	- A-1
U.S. producers' capacity and production	- A-2
U.S. producers' shipments	- A-2
Inventories	
Employment	
Financial experience of U.S. producers	
Return on investment	- A-2
Cash flow from operations	- A-2
Research and development and capital expenditures	
Consideration of the causal relationship between allegedly	
subsidized imports and imports allegedly sold at LTFV	
and the alleged injury:	
U.S. imports	
Brazil	
France	
The United Kingdom	
Cumulated imports	- A-3
Prices	
Trends in prices	
Transaction prices	
Comparisons of U.Sproduced and imported strand prices	
Brazil	
France	
The United Kingdom	
Purchase prices	
Lost sales	
Brazil	
France	
The United Kingdom	
The question of alleged threat of material injury	- A-4

CONTENTS

		Page
App App	endix A. The Commission's Federal Register noticeendix B. Witnesses at the Commission's conference	A- 43 A- 45
•		
	Figures	•
1.	Prestressed concrete steel wire strand	A- 3
2.	Prestressed concrete steel wire strand: U.S. consumption,	A-11
3.	Prestressed Concrete Institute business volume indicator, by quarters, July 1975-December 1981	A-1 2
4.	Prestressed concrete steel wire strand: U.S. imports and U.S.	A 12
	producers' shipments as a share of consumption, 1974-81	A- 30
5.	Prestressed concrete steel wire strand (1/2 inch, 270K, stress	
	relieved, 7 wire): Indexes of weighted average selling	
	prices of U.Smade strand imported from Brazil,	
	France and the United Kingdom, by quarters,	A 35
6.	Prestressed concrete steel wire strand (1/2 inch, 270K, stress	A
	relieved, 7 wire): Weighted average selling prices of	
	U.Smade strand and of strand imported from Brazil,	
	France and the United Kingdom, by quarters,	A 27
	1979-1981	A-3/
	Tables	
1.	famous fa	
	locations, period production began, and share of shipments in	. 12
2.		A- 13
۷.	capacity, production, and exports to selected areas,	
	1979-81	A-15
3.	Prestressed concrete steel wire strand: Chiers-Chatillon-Gorcy's	A 16
4.	productive capacity, production and exports, 1979-81	H-TO
7.	duction and exports, 1979-81	A- 17
5.		
6.	Prestressed concrete steel wire strand: U.S. producers' capacity	
	and production, by firms, 1979-81	A- 20
7.	Prestressed concrete steel wire strand: U.S. producers' shipments,	A- 21
8.	Prestressed concrete steel wire strand: U.S. producers' shipments and inventories, 1974-81	
9.	Average number of U.S. production and related workers engaged in the	41
	manufacture of prestressed concrete steel wire strand, hours	
	worked by such workers, wages paid, total compensation, and	
	productivity, 1974-81	A- 23

CONTENTS

	Tables	Page
	Tables	
10.	Average number of U.S. production and related workers engaged in the manufacture of prestressed concrete steel wire strand, hours worked by such workers, wages paid, total compensation, and productivity, by firms, 1979-81	A-23
11.	Profit-and-loss experience of U.S. producers on their operations on prestressed concrete steel wire strand, 1974-81	
12.	Profit-and-loss experience of U.S producers on their operations on prestressed concrete steel wire, by firms, 1979-81	
13.	Investments in assets used in productive facilities by U.S. producers of prestressed concrete steel wire strand, as of the end of accounting years 1979-81	
14.	Cash flow from U.S. producers' operations producing prestressed concrete steel wire strand, 1979-81	
15.	Prestressed concrete steel wire strand: U.S. producers' research and development and capital expenditures, 1974-77 and 1979-81	
16.	Prestressed concrete steel wire strand: U.S. imports for consumption, by principal sources, 1979-81	A- 28
17.	Prestressed concrete steel wire strand: U.S. imports and U.S. producers' shipments as a share of consumption, 1974-81	A- 29
18.	Prestressed concrete steel wire strand: U.S. imports and U.S. producers' shipments, by quarters, 1980 and 1981	A- 31
19.	Prestressed concrete steel wire strand: U.S. imports and U.S. producers' shipments as a share of consumption, by quarters, 1979-81	A- 32
20.	Prestressed concrete steel wire strand (1/2/-inch, 270K, stress relieved, 7 wire): Indexes of weighted average selling prices of U.Sproduced strand and of strand imported from Brazil, France, and the United Kingdom, by quarters, 1979-81	A- 27
21.	Prestressed concrete steel concrete wire strand (1/2-inch, 270K, stress relieved, 7 wire): Ranges of selling prices and weighted average selling prices of U.Sproduced strand and of strand imported from Brazil, France, and the United Kingdom, by	
22.	quarters, 1979-81	A- 36 A- 41
23.	Yearend inventories of prestressed concrete steel wire strand imported from the United Kingdom held by Springfield Industries, 1978-81	A-42
	teInformation which would disclose confidential operations of vidual concerns may not be published and therefore has been deleted	
from	this report. These deletions are marked by asterisks.	

.

iv

UNITED STATES INTERNATIONAL TRAFF COMMISSION Washington, D.C.

Investigations Nos. 701-TA-152 and 153 (Preliminary) and 731-TA-89 (Freliminary)

PRESTRESSED CONCRFTE STEFL WIFE STRAND FFOM BFAZIL, FPANCE, AND THE UNITED KINGDOM

Determinations

On the basis of the record 1/ developed in its countervailing duty investigations on prestressed concrete steel wire strand from Prazil and France, the Commission determines, 2/ pursuant to section 703(a) of the Tariff Act of 1930 (19 U.S.C. 1671h(a)), that there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury 3/ by reason of imports of wire strand of steel for prestressing concrete, provided for in item 642.11 of the Tariff Schedules of the United States (TSUS), upon which bounties or grants are alleged to be paid.

On the basis of the record developed in its antidumping investigation on prestressed concrete steel wire strand from the United Kingdom, the Commission determines, 2/ pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury 3/ by reason of imports of wire strand of steel for prestressing concrete provided for in item 642.11 of the TSUS, from the United Kingdom which are alleged to the sold in the United States at less than fair value (LTFV).

^{1/} The "record" is defined in sec. 207.2(i) of the Commission's Fules of Practice and Procedure (47 F.R. 6190, Fet. 10, 1982).

^{2/} Commissioner Frank dissenting.

 $[\]overline{3}$ / Chairman Alberger and Commissioner Haggart find a reasonable indication of present material injury only.

Packground

On March 4, 1982, a petition was filed by counsel on behalf of 6 U.S. producers 1/ with the U.S. International Trade Commission and with the Department of Commerce alleging that an industry in the United States is materially injured, or is threatened with material injury, by reason of imports from Brazil and France of prestressed concrete steel wire strand upon which bounties or grants are alleged to be paid and by reason of imports from the United Kingdom of prestressed concrete steel wire strand which are allegedly being sold at less than fair value. Accordingly, the Commission instituted preliminary investigations under sections 701(a) and 733(a), respectively, of the Tariff Act of 193C to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of the importation of such merchandise into the United States.

Notice of the institution of the Commission's investigations and of a conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, D.C., and by publishing the notice in the <u>Federal Register</u> on March 16, 1982 (47 F.F. 11342). The conference was held in Washington, D.C. on March 25, 1982, and all persons who requested the opportunity were permitted to appear in person or by counsel.

^{1/} American Spring Wire Corp., Armco Inc., Bethlehem Steel Corp., Florida Wire & Cable Co., Pan American Ropes, Inc., and Shinko Wire America, Inc. are petitioners in the investigations concerning imports of the product from France and the United Kingdom. These same firms, except Armco and Bethlehem, are also petitioners in the investigation concerning imports from Brazil.

VIEWS OF CHAIRMAN BILL ALBERGER, VICE CHAIRMAN MICHAEL J. CALHOUN, AND COMMISSIONERS PAULA STERN, ALFRED E. ECKES AND VERONICA A. HAGGART

Introduction

We find that there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of prestressed concrete steel wire strand from Brazil and France, which allegedly are subsidized, and imports from the United Kingdom, which allegedly are sold at less than fair value. 1/ We have made this determination on a case-by-case basis. 2/ Should any of the affirmative preliminary cases return for final determinations, however, we do not preclude cumulation of the imported products if the record developed shows that such cumulation is appropriate. 3/

Recent profits of the domestic industry have been low and prices essentially flat for the past three years as imports from the three countries under investigation have increased. These developments, among other considerations, give rise to a reasonable indication that the domestic industry is being materially injured by reason of imports from the three countries under investigation, primarily through lost sales and the impact on pricing. Despite the fact that imports from Japan fell sharply after antidumping duties were imposed in late 1978, the health of the domestic industry did not improve as expected. Furthermore, the large unused capacity

¹/ Chairman Alberger and Commissioner Haggart determine only that there is a reasonable indication of material injury, and therefore do not reach the issue of reasonable indication of threat of material injury.

^{2/} Vice Chairman Calhoun has cumulated. See his Additional Views.

^{3/} For Chairman Alberger, Commissioners Stern and Eckes views on cumulation, see Carbon Steel Wire Rod from Brazil, Belgium, France and Venezuela, Inv. No. 731-TA-88, pp. 7-8.

of the British and Brazilian producers and the large inventory of the French importer indicate that imports may continue to affect the domestic industry adversely in the near future.

Domestic industry

Section 771(4)(A) of the Tariff Act of 1930 defines the term "industry" as the "domestic producers as a whole of a like product or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product." 4/ The statute defines "like product" as a product which is like or in the absence of like, most similar in characteristics and uses with the article under investigation. 5/

Prestressed concrete steel wire strand (PC strand), the imported article subject to these investigations, is a product consisting of one center wire and six helically placed outer wires. It is made to ASTM specification A416-74 and is available in two grades, 250 and 270. The most common size in which the product is sold is 1/2" diameter, although PC strand is also sold in 1/4", 5/16", 3/8", 7/16", and 0.6" diameters.

The U.S. product that is like the imported product is all wire strand of steel for prestressing concrete. The domestic and imported products are made to the same ASTM specifications and are devoted to the same uses. Although there was testimony at the conference by those opposed to the petition that there are quality differences between the imported product and the domestic

^{4/ 19} U.S.C. § 1677(4)(A). 5/ 19 U.S.C. § 1677(10).

product, there is no indication that the domestic product is sufficiently dissimilar in characteristics and uses so as not to be a "like product."

The domestic producers of the like product are American Spring Wire Corp., Armco Steel Corp., Bethlehem Steel, CF&I Steel Corp., Florida Wire & Cable Co., Pan American Rope Co., Shinko Wire Co., and Sumiden, Inc. These producers constitute the domestic industry.

Shinko and Sumiden are principally owned by Japanese companies, and Florida Wire is principally owned by Ivaco of Canada. The statutory definition of the domestic industry treats foreign-owned producers located in the United States the same as the other domestic producers unless it can be shown that such producers are related parties as defined in section 771(4)(8). 6/ In this case, there is no connection between foreign-owned domestic producers and the imports in question. Thus, there is no basis in law for excluding Sumiden, Shinko, and Florida Wire from the U.S. industry for the purposes of these investigations.

Material injury by reason of LTFV or subsidized imports

In preliminary countervailing duty and antidumping investigations, the Commission is directed by Title VII of the Tariff Act of 1930 to determine, based upon the best information available at the time of the determinations, whether there is a reasonable indication that an industry in the United States is materially injured or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of the merchandise that is the subject of the

^{6/ 19} U.S.C. § 1677(4)(B).

investigations. 7/ "Material injury" is defined as "harm which is not inconsequential, immaterial, or unimportant." 8/

Section 771(7) of the Act directs the Commission to consider, in making its determinations, among other factors, (1) the volume of imports of the merchandise under investigation, (2) their impact on domestic prices and (3) the consequent impact on the domestic industry. 9/

Volume of imports.—Although total annual imports decreased 36 percent from 1978 to 1981, imports from each of the countries under investigation rose irregularly over the same period. 10/ Imports from Brazil increased from 10 million pounds in 1978 to 14 million pounds in 1981. Imports from France also showed a dramatic increase, tripling from 2 million pounds in 1978 to 6 million pounds in 1981. The United Kingdom's imports nearly doubled from 5.5 million pounds in 1978 to almost 10 million pounds in 1981. The market share of the three countries under investigation increased.

Effect of imports on domestic prices.—The best information available to the Commission shows that imports from each of the three countries under consideration have affected domestic prices. Domestic prices have been essentially flat since January 1979 despite general inflationary trends in the economy that have increased the costs to the domestic industry for labor, energy, and other inputs. Low-priced imports seem to be partly

^{7/ 19} U.S.C. §§ 1671b, 1673b.

^{8/19} U.S.C. § 1671(7)(A).

^{9/ 19} U.S.C. § 1677(7).

^{10/} Report, p. A-27.

responsible for suppressing domestic prices. The Commission has confirmed underselling by imports from all three countries under consideration.

Lost sales.—Pricing data received in the investigation on the bulk of the United Kingdom imports show that United Kingdom prices exceeded domestic prices on average. 11/ However, six lost sales due to underselling were alleged and three were confirmed. 12/ While these lost sales represented only a small percentage of total United Kingdom imports in 1981, they do reasonably indicate that imports are a cause of material injury.

Eleven lost sales were alleged to have been lost to PC strand from Brazil. Ten of these allegations were investigated by the staff and lost sales were verified in nine instances, which covered 89 percent of the alleged lost volume. 13/ The staff investigated twelve allegations of lost sales from France and verified ten instances in which sales were lost due to underselling. 14/

Impact on the domestic industry.--15/ The profit-and-loss experience of the domestic industry reflects the impact of the flat price levels since

January 1979. The ratio of net profits to net sales went from a healthy aggregate level in 1979 to a very low level in 1981, as domestic producers were unable to raise prices to cover increased costs. 16/ Although production and

^{11/} Report, p. A-38, Table 21, p. A-36.

 $[\]overline{12}$ / Report, p. A-41.

^{13/} Report, p. A-40.

^{14/} Report, p. A-40.

^{15/} Industry data are confidential and cannot be discussed in this public document.

^{16/} Report, p. A-24.

sales rose, the combination of flattened prices during a time of rising costs, underselling by the imports from each country, and a strong showing of lost sales provide a reasonable indication that imports were adversely affecting the profitability of the domestic industry.

Threat of material injury 17/

The report of the Committee on Ways and Means of the House of Representatives on the Trade Agreements Act of 1979 states that, with respect to threat, the Commission should focus on--

demonstrable trends—for example, the rate of increase of the . . . dumped exports to the U.S. market, capacity in the exporting country to generate exports, the likelihood that such exports will be directed to the U.S. market taking into account the availability of other export markets. . .

An important factor in considering how substantial an impact imports have had is the short period of time in which the increase occurred. Since the imposition of antidumping duties on imports from Japan in late 1978, imports from the three subject countries have increased dramatically, and these import levels appear likely to continue. Substantial excess capacity in Brazil and the United Kingdom indicates that those countries will be able to continue to increase shipments to the United States. 18/ Although France does not have nearly the same amount of unused capacity, the French producers are expanding their capacity in 1982. 19/ Furthermore, the sale of French inventories warehoused in the United States could adversely affect the U.S. industry in the near future.

^{17/} See fn. 1.

 $[\]overline{18}$ / See Report, p. A-14 and A-16.

^{19/} See Report, p. A-15.

Conclusion.

On the basis of the best information available, we find that there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of prestressed concrete steel wire strand from Brazil and France, which are allegedly being subsidized, and imports from the United Kingdom, which are allegedly being sold at less than fair value. 20/ The reasonable indication standard has been satisfied in these preliminary cases. Should these cases return for final determinations, we will require a more complete demonstration of how the prices of the imports affect the health of the domestic industry, particularly its profitability. 21/

^{20/} See fn. 1.

^{21/} Chairman Alberger, Vice Chairman Calhoun, and Commissioners Stern and Haggart note that the last consideration could be important because the recent large increase in domestic capacity could have a negative impact on profits which would have little to do with any import-related injury.

en en la companya de la companya de

en de la companya del companya de la companya de la companya del companya de la companya del companya de la companya de la companya de la companya de la companya del companya de la companya del companya de la companya de la companya de la companya de la companya del companya de la companya

and the second s

and the second of the second o

inger i de la companya de la company

10

ADDITIONAL VIEWS OF VICE CHAIRMAN MICHAEL J. CALHOUN 1/

Consistent with my analysis in the most recent series of steel cases 2/ and in view of all the relevant economic factors before us, my view is that it is through their aggregate rather than individualized presence in the domestic marketplace that the imports before us most reasonably have their requisite impact. In the absence of other data regarding behavior in the marketplace, I reach this conclusion based on all the factors relied upon in the majority opinion as well as two others.

First, the market share held by each of the three countries under investigation is very low. This strongly suggests to me, in the absence of other information, that any causal link between these imports and material injury to the domestic industry likely results from the collective impact rather than individual behavior.

In addition, the domestic producers enjoy a rather low, though expanding share of the domestic market compared with the share held by other parts of the steel sector. In a situation where a domestic industry characteristically holds relatively low levels of market share, absent special market circumstances, the likelihood of very low levels of imports causing material injury is certainly greater than where the domestic producer's share is high. Thus, to me, the combination of low individual market shares coupled with low levels of the domestic producers' shares strongly suggests that the impact on the domestic industry must be cumulative, if it exists at all.

^{1/} As market share figures are confidential in this investigation, references to market share are general.

^{2/} Investigations Nos. 701-TA-86 through 119, 701-TA-121, 701-TA-123 through 144, 701-TA-146, 701-TA-147, 731-TA-53 through 65, and 731-TA-67 through 86 (Preliminary), USITC Pub. No. 1221.

But, as in other cases, I wish to make clear that in general, market share analysis is not the sole basis for aggregating in this investigation. Historically, the Commission has looked at a number of factors in deciding if it were appropriate to aggregate the impact of imports from various sources. These factors include comparability and competition of the products in the marketplace. Related to this is the fact that the subject imports are identical to the domestic product both in characteristics and in uses. Evidence of lost sales and preliminary pricing data make it clear that imports and the corresponding domestic product interact very closely in the market.

With respect to cumulating the impact of allegedly LTFV sales of imports from the United Kingdom with the allegedly subsidized imports from Brazil and France, as I indicated in our most recent steel investigation, 1/this is an issue with which I continue to have difficulty. I do not resolve the matter in this opinion as I am awaiting more detailed legal argument in the final steel investigation.

However, quite a reasonable argument can be made that it is permissible to cumulate the impact of imports of allegedly LTFV sales and the impact of subsidized imports in reaching a finding of material injury. And since my view in this preliminary investigation is that material injury turns on the opposite impact, I have found that there is a reasonable indication that imports from the United Kingdom are a cause of material injury to the domestic industry.

^{1/} Certain Steel Wire Rod from Brazil, Belgium, France, and Venezuela, Investigation No. 731-TA-88, USITC Pub. No. 1230, pp. 17-20.

VIEWS OF COMMISSIONER EUGENE J. FRANK

Introduction

On the basis of available information and the record before me, I have determined that there is not a reasonable indication that an industry in the United States is suffering material injury or is threatened with material injury by reason of allegedly subsidized imports of prestressed concrete steel wire strand from Brazil and France and imports from the United Kingdom allegedly sold at less than fair value.

I note that the statute and legislative history require the Commission in its preliminary determinations in both antidumping and countervailing duty investigations to exercise only a low threshold test based upon the best information available to it at the time of such determination that the facts reasonably indicate that an industry in the United States could possibly be suffering injury, threat thereof or material retardation. 1/

Notwithstanding this "low threshold test" which I believe Congress mandated the Commission to apply in these preliminary investigations, in analyzing pertinent economic data available to me in these investigations, I have been unable to ascertain a <u>reasonable possibility</u> of a causal relationship and link existing, pursuant to this less rigorous standard than that applied in final investigations, at this time between the state of the domestic industry and the allegedly subsidized or dumped imports subject to these investigations both in terms of present material injury or threat thereof. 2/

^{1/} H.R. Rep. No. 96-317, 96th Cong., 1st Sess., 52 (1979).

^{\(\}frac{2}{\text{Material retardation}}\) was not alleged by petitioners in these investigations. For an extensive discussion on how I believe the legislative intent on the "low threshold" test in these preliminary investigations should be applied, see Certain Steel Products from Belgium . . . Inv. Nos. 701-TA-86-144, 146, 147, and 731-TA-53-86 (Preliminary), USITC Pub. 1221, February 1982, Views of Commissioner Eugene J. Frank at 121-124.

Domestic Industry

Section 771(4)(A) of the Tariff Act of 1930 defines the term "industry" as the "domestic producers as a whole of a like product or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product." 3/ Section 771(10) defines "like product" as a product which is like, or in the absence of like, most similar in characteristics and uses with the article under investigation. 4/

The imported article subject to these investigations is Prestressed

Concrete Steel Wire Strand (PC Strand). It is a product consisting of one
center wire and six helically placed outer wires, made to ASTM specification

A416-74, and is available in two grades, 250 and 270. The most common size in
which the product is sold is 1/2" diameter, although it is also sold in 1/4",

5/16", 3/8", 7/16", and 3/5" diameters. Most PC strand is sold coiled in
standard packs of 12,000 feet of continuous strand and is purchased by
construction firms which tension the strand to elastic limits for use in
compressing concrete to provide increased load resistance. PC strand is
produced from uncoated round high-carbon steel wire which has been cold-drawn
from wire rods to suitable sizes, then fabricated by a stranding machine into
required strand sizes. 5/

In conformance with the statute for the purpose of these preliminary investigations, I must concur with the recommendations of the Office of the General Counsel 6/ that the product that is like the imported product is all

^{3/ 19} U.S.C. § 1677(4)(A).

 $[\]overline{4}$ / 19 U.S.C. § 1677(10).

^{5/} Report at A-2 through A-4.

 $[\]overline{6}$ / Office of General Counsel Memorandum GC-F-109.

wire strand of steel, other than stainless steel, for prestressing concrete. The domestic product, as is the imported product, is made to the same ASTM specifications and has the same characteristics and uses. I note that testimony at the conference by those in opposition to the petition indicated that there are quality differences between the imported product and the domestic product. However, there is no indication at this time that the domestic product is dissimilar to a material extent with respect to characteristics and uses so as not to be a "like product."

From this statutorily mandated "like product" perspective, the domestic producers of the "like product" comprising the "domestic" indutry, therefore would be American Spring Wire Corp., ARMCO Steel Corp., Bethlehem Steel, CF&I Steel Corp., Florida Wire & Cable Co., Pan American Rope Co., Shinko Wire Co., and Sumiden, Inc.

It should be noted from the onset that over half of 1981 domestic shipments of PC Strand were accounted for by "domestic" producers who are foreign-owned and controlled, namely: Florida Wire & Cable Co., principally owned by Ivaco of Canada; Shinko Wire American, Inc., principally owned by Shinko Wire Co., Ltd. of Japan; Sumiden Wire Product Corp., principally owned by Sumitomo Electric Industries, Ltd., with other ownership by Sumitomo Corp. and Kurt Orban Co., Inc. 7/8/

An issue arises which involves application of the "related party" provision of Section 771(4)(B) of the Tariff Act which states:

When some producers are related to the exporters or importers, or are themselves importers of the allegedly subsidized or dumped merchandise, the term "industry"

^{7/} Report at A-13.

^{8/} Memorandum INV-F-042 dated April 13, 1982.

may be applied in appropriate circumstances by excluding such producers from those included in that industry. 9/

From the information available to us, it does not appear at this time that the foreign producers located in the United States of the like product in question would constitute "related parties" pursuant to this section of the statute nor do "appropriate circumstances" exist at this time for their exclusion from the domestic industry comprised by producers of the like product. However, there are some significant relationships in this connection that have a bearing on overall domestic industry and import trends that I considered to be relevant economic factors in my analyses which are discussed further herein.

Reasonable Indication of Material Injury by Reason of Imports

Section 771(7)(B) directs the Commission in making material injury determinations to consider among other factors (1) the volume of imports of the merchandise which is the subject of the investigation, (2) the effect of imports of such merchandise on prices in the United States for like products, and (3) the impact of imports of such merchandise on domestic producers of like products. 10/

Imports

In analyzing import trends of the product subject to these investigations, I aggregated the impact of alleged unfairly traded imports of PC Strand from Brazil, France, and the United Kingdom, as well as from Spain

^{9/ 19} U.S.C. § 1677(4)(B).

^{10/ 19} U.S.C. § 1677(7)(B).

and South Africa. 11/ 12/ On this basis, it is readily apparent that imports from the five cited countries from 1978 to 1981 increased irregularly on an absolute basis, 50 percent or approximately 22.9 million pounds, and also increased U.S. market share relative to domestic consumption. However, during the same period, overall U.S. imports declined 36 percent or over 80 million pounds, and penetration by U.S. producers of the U.S. market increased dramatically, more than offsetting gains by target countries. In fact, viewing such trends from a 1975 to 1981 time period (1974 being somewhat atypical in terms of heightened consumption and domestic demand for these products with shortages of available product), one can see a significant transformation of a domestic market in basically a growth profile previously characterized as dominated by imports, primarily from Japan, to one in which the expanded domestic industry has made enormous inroads and now accounts for a majority of the market vis-a-vis total imports, utilizing of course the statutorily mandated determination as set forth earlier herein. 13/ Furthermore, during the 1978 to 1981 period, the decrease in imports from

^{11/} See pages A-1 to A-2 of the Report. In November 1981 Counsel for U.S. producers filed petitions with Commerce alleging subsidies were bestowed on P.C. Strand imported from Spain and South Africa. These countries, however, were not signatories to the International Subsidy Code at the time of the instant investigation and therefore are not entitled to any injury test by the Commission. By memorandum of April 15, 1982, XL-F-022 from the Office of Executive Liaison and Special Advisor for Trade Agreements, I was advised that on April 14, 1982, Spain acceded to the subsidies code subject to a certain reservation, and on that date was designated as a "Country under the Agreement" for U.S. countervailing duty purposes. I believe the imports from these two countries could be cumulated with the other 3 countries subject to these Commission preliminary investigations. For my reasoning on cumulation, see Certain Steel Products from Belgium . . . at 127-129. See also April 8, 1982, General Counsel's memorandum GC-F-109.

¹²/ Much of the data pertinent to this area has been designated as confidential and the discussion by necessity will, where appropriate, focus on generalized trends.

^{13/} Report at A-29, Table 17, A-30, A-32.

Japan was over 4 times greater than the increase in imports during the same period from the 5 target countries with 1981 particularly evidencing a dramatic drop in imports from Japan. 14/

it is not of little consequence to observe in this regard that, subsequent to the 1981 dumping order issued against Japan concerning the importation of this product that is still in effect today, 15/ the two largest Japanese producers of PC Strand accounting for the majority of the PC Strand found to be sold at LTFV during the aforesaid antidumping investigation opened two facilities with stranding machines located in Texas and California, two prime U.S. markets for this product; and both these companies plan additional expansion to their existing production capacity in the very near future. 16/ These observations are especially pertinent with respect to assessing the impact of the alleged unfairly traded imports on the domestic industry. Notwithstanding the fact that the first criteria has obviously been met, such imports must be viewed in the context of overall trends in imports as well as the composition and character of the firms comprising the "domestic" industry, perhaps going beyond the definition and resultant determination of the domestic industry. This will be treated in the discussion on the condition of the domestic industry.

There are indications at this point of possible price suppression in viewing domestic pricing patterns for this product which have essentially been flat since January 1979, in the context of a period of economic inflation affecting costs of critical productive inputs, although there were evidently

^{14/} Report at A-28, Table 16.

 $[\]overline{15}$ / Report at A-1.

^{16/} Report at A-14.

substantial price fluctuations occurring for both imports and domestic products during the period. 17/ It is important to reiterate that expansion of domestic producers penetration and manifestations of other positive economic indicators of the industry occurred during this period. It is also noted that the staff apparently did extensive work in investigating lost sales which corroborated during the cause of such inquiry a considerable number of instances, evidently representative, of underselling from the three cited countries subject to the Commission injury test in these preliminary investigations--despite certain pricing data on the bulk of United Kingdom imports that show such imports' prices exceeded domestic prices on average, and the fact that there were apparently instances in which the imported strand was more expensive than U.S. produced strand. 18/ In fact, I must commend the staff for the work done in pricing and lost sales area, which appears more extensive for some reason than was done in other recent Title VII preliminary investigations. Of note particularly was intensive inquiry made of purchasers of PC Strand of delivered prices quoted by domestic producers and importers to the same purchasers and prices paid of a representative article which shows underselling by imports in cited typical examples of competing quotes. 19/ have always held that actual delivered prices factoring in freight transportation cost absorption potentials, as well as the terms and conditions of payment of a representative article, can be more meaningful than indexes or tables comprised of pricing data comparing f.a.s. port or importers warehouse with domestic f.o.b. mill or of aggregate published indices on a time-series basis of composite data. I am pleased to see recognition in this particular

^{17/} Report at A-36, Table 21.

^{18/} Report at A-33 through A-41.

^{19/} Report at A-39.

report in this preliminary investigation that such comparisons for this product ". . . do not reflect the respective competitive positions of domestic producers and importers." 20/

Domestic Industry 21/

Although the profit-and-loss experience manifests a decline on an aggregate basis since 1979, other industry indicators evidenced a predominantly positive industry profile which, even utilizing the "low threshold" standard I have consistently maintained to be the legislative intent in the conduct of these preliminary investigations, do not provide sufficient assurance of causal link necessary for a determination of "reasonable indication" of possible material injury suffered by the domestic industry by reason of such imports at this time.

During the 1979 through 1981 period, U.S. producers' capacity and actual production markedly increased by over 50 percent respectively, while capacity utilization declined somewhat irregularly, with the 1981 decline attributed to the additional new capacity outpacing the increase in production, but still at relatively acceptable levels compared with lower 1975-1977 results. Moreover, certain producers state that PC steel wire strand-producing machinery efficiency decreases when such machinery is operated above certain capacity utilization rates; and when these levels are attained additional new machinery is preferred rather than operating the existing machinery at higher levels. Discounting 1974 as atypical, going back to 1975-1981, growth in U.S. producers capacity and actual production registered even more dramatic

^{20/} Report at A-38.

 $[\]overline{21}$ / Industry data have been designated confidential; consequently the discussion here by necessity focuses on generalized trends.

increases. 22/ U.S. producers' shipments of PC Strand followed similar most favorable trends during the same periods as production and increased at a significant annual average rate from 1975 to 1981 with exports accounting for only a minor share of such shipments. 23/ Year-end inventories of U.S. producers, as a percent of shipments, decreased 46 percent from 1975 to 1976 and remained fairly stable thereafter. 24/ Employment indices such as total number of hours worked per employee, productivity (measured by pounds produced per hour), and average total compensation increased also during the 1974-1981 period. 25/

U.S. consumption of PC Strand, which fell substantially from 1973 to 1976 subsequently increased irregularly during the ensuing period through 1981 at a farily significant average annual growth rate. 26/ Construction firms purchase steel wire strand and tension the strand to its elastic limit to compress concrete providing increased resistance to loads. Such prestressed concrete is widely employed in the construction of bridge girders, beams, pilings, railroad ties as well as in a variety of building products such as columns, roofs and floors. 27/ U.S. consumption of prestressed concrete steel wire strand, according to the Prestressed Concrete Institute (PCI) and one of the petitioners at the conference 28/ is expected to increase at a rate of 5 to 6 percent per year for the next few years. The following have been cited as growth markets: bridges, interstate highways, condominiums, apartments,

^{22/} Report at A-20 to A-21.

^{23/} Report at A-21.

^{24/} Report at A-22, Table 8.

^{25/} Report at A-22 to A-23.

^{26/} Report at A-9 to A-10.

^{27/} Report at A-4.

^{28/} Transcript of the Conference, page 48.

parking garages, government buildings, and airports. 29/ Moreover, although the U.S. Construction Sector is currently depressed, prestressed concrete is capturing an increasing share of the stagnant market. For example, in 1973, prestressed concrete accounted for 7 percent of total U.S. consumption of walls, floors, and roofs. In 1982, according to projections by the PCI, prestressed concrete will account for 30 percent of such construction. So one can see end-use markets for PC Strand are projected to remain in a growth mode at least for the next few years.

Although net sales of PC Strand decreased in 1975 and 1976 from 1974 levels, they subsequently increased each year through 1981. 30/ As noted earlier, profit—and—loss experience manifests a decline on aggregate basis since 1979 both on gross profit and net profit results, which may be reflective in part of unfavorable pricing patterns incurred. Yet critical cost components of the domestic producers on a quarterly basis such as rod costs, labor cost increases (cited by petitioners in testimony), and energy costs evidently were not provided by petitioners on a quarterly basis although such important data was requested by staff at the hearing. 31/ Such information, along with manufacturing variances from standard or equivalents, might better enable the Commission to winnow out the effects of start—up of new productive machinery from other adverse cost/price/volume relationships attributable to unfavorable prices therefore dampening gross margins. This would be helpful because opponents to the petitioners have claimed significant

^{29/} Report at A-10.

 $[\]overline{30}$ / Report at A-23.

 $[\]overline{31}$ / Transcript of Conference, p. 41 and 58, and conversation with Mr. Howard Gooley on April 14, 1982.

start-up costs in 1980 and 1981 should be factored into an analysis of the profitability of the domestic producers for those years. 32/ In fact, Counsel for petitioners during his testimony at the Conference cited interest costs on the part of the domestic industry ". . . of carrying the working capital and, indeed, commanding funds required for the enlargement of capacity has increased quite markedly during the period 1979 to 1981, as you can appreciate." 33/ In view of these contentions, I requested from staff by my memorandum dated April 13, 1982 34/, a break-out of interest expenses incurred by firms for the domestic industry segregating that attributable to carry indebtedness to support new capital investment from that to support working capital. On that same date I received a response from staff providing aggregate interest expense captions per firm which showed a fairly substantial increase from 1979 to 1981 in this expense caption, but indicated that a differentiation of such expenses attributable to new capital investment vis-a-vis working captial "is not available." 35/ Such information is obviously germane in assessing adverse net profit margins (and for that matter cash flow from operations) and the role new indebtedness incurred relating to expansion may have played as opposed to that incurred to support normal continuing operations i.e. working capital.

One must also note fairly positive trends in investment by the domestic industry in research and development and capital expenditures during the 1975 to 1981 period. 36/

^{32/} See e.g. Transcript of Conference, pp. 105-106.

 $[\]overline{33}$ / Transcript of Conference, pp. 38-39.

^{34/} Memorandum CO5-F-067 dated April 13, 1982.

^{35/} Memorandum INV-F-044 dated April 13, 1982.

 $[\]overline{36}$ / Report at A-26.

As stated earlier, there has been substantial increases in new productive capacity and production by the two Japanese owned firms, previously accounting for the majority of LTFV imports, subsequent to the imposition of the antidumping order which is still in effect. Counsel for petitioners stated in testimony that the Commission should give special attention to the fact that "... the new capacity corresponded almost exactly to the decline in supply of strand from Japan." 37/ In 1981, a Canadian steel concern, Ivaco, acquired a principal ownership interest in Florida Wire, the largest U.S. producer of PC Strand. These three firms, all foreign owned and controlled, plan to add substantial additions to capacity in the near future 38/ and already account for well over half of the industry in terms of aggregate share of 1981 U.S. shipments. 39/

The "related party" provision of the statute has already been cited herein. Pertinent legislative history of the Trade Agreements Act of 1979 in this respect provides the following:

The ITC is given discretion not to include within the domestic industry those domestic producers of the like product which are either related to exporter or importers of the imported product being investigated, or which import that product. Thus, for example, where a U.S. producer is related to a foreign exporter and the foreign exporter directs his exports to the United States so as not to compete with his related U.S. producer, this should be a case where the ITC would not consider the related U.S. producer to be a part of the domestic industry. 40/ (emphasis added)

^{37/} Transcript of Conference, page 44.

 $[\]overline{38}$ / Report at A-21.

 $[\]overline{39}$ / Report at A-13.

^{40/} S. Rep. No. 96-249, 96th Cong., 1st Sess., 83 (1979).

So we must focus solely on producers of the like product in applying the provision.

Although most domestic producers employ company salesmen to call on potential customers and solicit orders 41/ it is my understanding at least one of the two Japanese-owned domestic producers utilizes a different and, what some might consider to be an unusual marketing arrangement. Further, it should be noted that it is my belief that IVACO, principal owner of Florida Wire also owns Atlantic Steel Corp. of Atlanta, Georgia, a producer of wire rod. I believe it is imperative in the conduct of a final investigation, should the Commission be requested to undertake same, that it obtain detailed and verifiable information from all domestic producers, especially these three cited that are essentially foreign-owned, regarding the source, terms and conditions including credit and related support, of the major critical raw material component of PC Strand, wire rod, that they obtain for the manufacture of this product.

In view of discernible recent trends in overall imports of the product and concomitant trends in domestic productive expansion, it is essential to obtain this data to forestall or confirm the presumption perhaps held by some that trade laws may be circumvented or used by establishing "downstream" "on-shore" productive capacity providing "value-added" fabrication to the perhaps real and critical steel product relevant to these proceedings, wire rod. If such is indeed the case, I would suggest the "related party provision" in the statute might be inadequate to the task of insuring such

^{41/} Report at A-33.

backdoor circumvention does not take place in other areas, and perhaps ought to be revised. For example, a possible scenario could ensue where for some reason shortages of this increasingly important component of concrete construction by certain domestic producers could occur in the future, forcing up prices to end-users and creating higher margins that could cover losses incurred in importing sourced wire rod. I considered these trends as relevant economic factors in my determinations.

In view of the above, I have determined that there is <u>not</u> a reasonable indication that an industry in the United States is suffering material injury by reason of aforesaid alleged unfairly traded imports.

Threat of Material Injury

The Report of the Committee on Finance of the United States Senate on the Trade Agreements Act of 1979 provides in part with respect to threat:

In determining whether an industry in the United States is threatened with material injury, the ITC will consider the likelihood of actual material injury occurring. It will consider any economic factors it deems relevant, and consider the existing and potential situation with respect to such factors. An ITC affirmative determination with respect to threat of material injury must be based upon information showing that the threat is real and injury is imminent, not a mere supposition or conjecture . . .

Economic factors which may indicate that a threat of material injury is present vary from case to case and industry to industry. The ITC will continue to focus on the conditions of trade and competition and the nature of the particular industry in each case. 42/ (emphasis added)

The report of the Committee on Ways and Means of the House of
Representatives on this same statute provides in part with respect to threat:

^{42/} S. Rep. No. 96-249, 96th Cong., 1st Sess., 88-89 (1979).

In examining threat of material injury, the ITC will determine the likelihood of a particular situation developing into actual material injury. In this regard, demonstrable trends—for example, the rate of increase of the subsidized or dumped imports to the U.S. market taking into account the availability of other export market . . . 43/ (emphasis added)

There is no doubt imports from the accused countries have increased both absolutely and relative to market share, but this must be viewed in the context of overall total import trends and the nature and character of new domestic participants in the U.S. market and increased U.S. productive capability during the period.

I have been informed data and trends on foreign productive capacity have been designated confidential and therefore my observations herein must be even more generalized. In reviewing data available with respect to French and United Kingdom foreign capacity, utilization, potential export market opportunities cited as well as historical export trends to the U.S. etc., I am not sufficiently convinced exports from these countries pose a reasonable indication of a real threat of imminent injury to the domestic industry at this time. There is some indication that Brazil has sufficient capacity that could pose a threat to the U.S. which I did take into consideration. 44/

However, in considering the above as well as the preponderance of the aforesaid positive economic indicators demonstrated by the domestic industry, overall import trends, and the fact that certain domestic producers already having substantial market presence in the U.S. have not renounced plans for further increases in productive capacity in the near future commensurate with

^{43/} H.R. Rep. No. 96-317, 96th Cong., 1st Sess., 47 (1979).

 $[\]overline{44}$ / See Report at A-14 to A-17.

further expected growth in PC Strand end-user market applications

(notwithstanding the supposed threat), I believe at this time that finding a

reasonable indication of threat of material injury would indeed be indulging

in mere supposition or conjecture.

Accordingly, I have determined that there is <u>not</u> a reasonable indication that an industry in the United States is threatened with material injury by reason of alleged unfairly traded imports from the cited countries.

INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

On March 4, 1982, counsel for six U.S. producers 1/ of prestressed concrete steel wire strand filed petitions with the $U.\overline{S}$. International Trade Commission and the Department of Commerce alleging that an industry in the United States is materially injured or is threatened with material injury by reason of imports of prestressed concrete steel wire strand provided for in item 642.11 of the Tariff Schedules of the United States (TSUS), from Brazil and France, upon which bounties or grants are alleged to be paid and imports of such merchandise from the United Kingdom which are allegedly sold at less than fair value (LTFV). Accordingly, effective March 4, 1982, the Commission instituted preliminary investigations under sections 703 and 733 of the Tariff Act of 1930 to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of the importation of such merchandise into the United States. The statute directs that the Commission make its determinations within 45 days after its receipt of a petition, or in this case, by April 19, 1982.

Notice of institution of the Commission's investigations and of a conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, D.C., and by publishing the notice in the Federal Register on March 16, 1982 (47 F.R. 11342). 2/ The conference was held in Washington, D.C., on March 25, 1982. 3/

Other Investigations Concerning Prestressed Concrete Steel Wire Strand

In 1978, the Commission conducted two antidumping investigations concerning imports of prestressed concrete steel wire strand. In August 1978, the Commission determined that an industry in the United States was not being injured and was not likely to be injured and was not prevented from being established by reason of the importation of prestressed concrete steel wire strand from India that was being, or was likely to be, sold at LTFV. In November 1978, the Commission determined that an industry in the United States was being injured by reason of the importation of such merchandise from Japan that was being or was likely to be sold at LTFV. A dumping order concerning the importation of this product from Japan was issued on December 8, 1978 (43 F.R. 57599); this order is still in effect today.

^{1/} American Spring Wire Corp., Armco Inc., Bethlehem Steel Corp., Florida Wire & Cable Co., Pan American Ropes, Inc., and Shinko Wire America, Inc., are petitioners in the investigations concerning imports of the product from France and the United Kingdom. These same firms, except Armco and Bethlehem, are also petitioners in the investigation concerning imports from Brazil.

^{2/} A copy of the Commission's notice is presented in app. A.

 $[\]overline{3}/$ A list of witnesses appearing at the conference is presented in app. R_{-1}

In November 1981, counsel for U.S producers filed petitions with Commerce alleging that subsidies were being bestowed upon the manufacture of wire strand imported from Spain and South Africa. 1/ Commerce is scheduled to make its preliminary determinations in these investigations early in April 1982. Because these countries are not signatories of the General Agreement on Tariffs and Trade (GATT) Subsidies Code, the Commission is not required to make an injury finding before countervailing duties are imposed.

The Product

Steel wire strand for prestressed concrete is produced from uncoated round high-carbon steel wire which has been cold-drawn from wire rods to suitable sizes, and then fabricated into the required strand sizes by a stranding machine. After fabrication, the strand is subjected to a continuous heat treatment, which relaxes the stresses built up in the individual wires of the strand as a result of the drawing and stranding processes. The resultant steel wire strand consists of one center wire and six helically placed outer wires (fig. 1). Steel wire strand for prestressed concrete is available in two grades, 250 and 270, which refer to minimum ultimate stress of 250,000 pounds per square inch (psi) and 270,000 psi, respectively. According to the American Concrete Institute, both grades of prestressed concrete strand conform to American Society for Testing & Materials (ASTM) specification A416-74, "Uncoated seven-wire stress-relieved strand for prestressed concrete," and are generally available in the following sizes: 2/

Nominal diameter

1/4 in (0.250 in, 6.35 mm)
5/16 in (0.313 in, 7.94 mm)
3/8 in (0.375 in, 9.53 mm) 3/
7/16 in (0.438 in, 11.11 mm) 3/
1/2 in (0.500 in, 12.70 mm) 3/
3/5 in (0.600 in, 15.24 mm) 3/

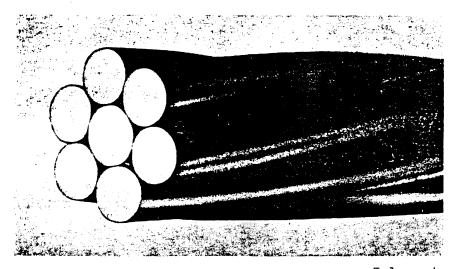
The 1/2-inch strand accounts for about 90 percent of the U.S market. Most prestressed concrete steel wire strand is sold coiled in standard packs of 12,000 feet of continuous strand. Steel wire strand is purchased by construction firms which tension the strand to near its elastic limit and use this tensioned strand to compress concrete to provide increased resistance to loads. Prestressed concrete is widely used in the construction of bridge girders, beams, pilings, and railroad ties, as well as in a variety of building products, such as columns, roofs, and floors.

^{1/} American Spring Wire Corp., Armco Inc., Bethlehem Steel Corp., Florida Wire & Cable Co., Pan American Ropes, Inc., and Shinko Wire America, Inc., are the petitioners in the investigation concerning imports from Spain. With the exception of Armco, these firms are also petitioners in the Scuth African investigation.

^{2/} Grade 270 is not available in diameters of 1/4 and 5/16 inch.

 $[\]overline{3}$ / Sizes predominantly used by the industry.

Figure 1.--Prestressed concrete steel wire strand.

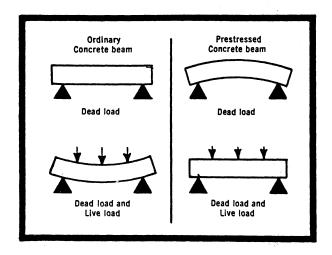


Enlarged.

Source: "Wire: A Growing Concept in Construction," <u>Wire Journal</u>, June 1973, p. 60.

Pretensioning and posttensioning are the methods used to prestress concrete. In pretensioning, steel wire strands are stretched between abutments; concrete is then poured into forms which encase the steel wire strands and is allowed to harden and bond to the tensioned steel. After the concrete has reached a specified strength, the strands are cut off at the ends of the concrete unit and the steel wire strand contracts. The contraction of the strand forces the concrete to contract and bow slightly. As a result, the load-bearing capability of the concrete is substantially increased. Plain concrete has a load-bearing capability of 2,500 psi, reinforced concrete has a load-bearing capability of 3,000-4,000 psi, and prestressed concrete has a load-bearing capability of 5,000-6,000 psi. By using large volumes of prestressed concrete steel wire strand, load limits of 10,000 psi have been achieved in prestressed concrete.

In posttensioning, strand is encased in tubing or wrapped, positioned in a form, and concrete is poured into the form. When the concrete sets and reaches a specified strength, the steel wire strand in the concrete unit is then stretched and anchored at the ends of the concrete unit. Stress is transferred to the concrete by the permanent end anchorages. In general, posttensioned prestressed concrete is stronger because it uses four to five times more strand than prettensioned concrete. This factor, combined with the greater ease of shipping steel wire strand compared with concrete with strand inside, has resulted in a greater use of posttensioning for beams, bridges, and other large units. In contrast, pretensioned concrete is used more extensively in the construction of building decks, floors, and walls, which can be mass produced in a plant and transported.



U.S. Tariff Treatment

Imported prestressed concrete steel wire strand is classifiable under item 642.11 of the TSUS. As a result of the agreements made during the Tokyo round of trade negotiations, the most-favored-nation (MFN) (column 1) 1/ rate of duty for this item was reduced from 7.5 percent ad valorem (effective from Jan. 1, 1972, to Dec. 31, 1979) to 7.2 percent ad valorem, effective January 1, 1980, to 6.9 percent ad valorem, effective January 1, 1981, and to 6.5 percent ad valorem effective January 1, 1982. This MFN rate of duty is scheduled to be further reduced in stages to 4.9 percent ad valorem by January 1, 1987. The rate of duty for imports under this item from least developed developing countries (LDDC's) 2/ is 4.9 percent ad valorem. The column 2 rate 3/ of duty is 35.0 percent ad valorem. Imports under this item are not eligible articles for purposes of duty-free treatment under the Generalized System of Preferences (GSP). 4/

Nature and Extent of Alleged Bounties and Grants and Alleged Sales at LTFV

Brazil

According to the petition, the Brazilian Government "provides a vast array of subsidies to domestic industries designed to promote economic development and enlarge the country's exporting sector." The alleged bounties and grants, which according to the petition are equivalent to 39 to 78 percent of the value of the prestressed concrete steel wire strand exported from Brazil to the United States, are summarized below:

^{1/} Column 1 rates of duty are applicable to imported products from all countries except those Communist countries and areas enumerated in general headnote 3(f) of the TSUS. However, these rates would not apply to products of developing countries where such articles are eligible for preferential tariff treatment provided under the Generalized System of Preferences or under the "LDDC" rate of duty column.

^{2/} The preferential rates of duty in the "LDDC" column reflect the full U.S. Multilateral Trade Negotiation concession rates implemented without staging for particular items which are the products of LDDC's enumerated in general headnote 3 (d) of the TSUS.

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

^{4/} The GSP, enacted as title V of the Trade Act of 1974, provides duty-free treatment for specified eligible articles imported directly from designated beneficiary developing countries. GSP, implemented in Executive Order No. 11888 of Nov. 24, 1975, applies to merchandise imported on or after Jan. 1, 1976, and is scheduled to remain in effect until Jan. 4, 1985.

- 1. As an incentive to exporters, the Brazilian Government exempts exported goods from the Federal Industrial Products (IPI) tax, and, in addition, grants exporters a credit on the IPI tax for the value of the exported goods.
- 2. The Department of Foreign Commerce of the Central Bank of Brazil gives certain companies preferential financing to receive working capital loans.
- 3. Until 1985, industrial and commercial firms in Brazil may exclude from their taxable profit that proportion of the profit which their export earnings bear to their total earnings.
- 4. The Brazilian Ministry of Labor administers programs in which Brazilian corporations may deduct 200 percent of their expenditures for training employees and deduct double the cost of meals provided employees.
- 5. The Brazilian Government offers special investment incentives for the steel industry.
- 6. According to the petition, ". . . incentives are available to exporters of manufactured products for dealings in foreign markets. First, exporters are exempt from withholding tax on export commissions paid to overseas agents. Second, the withholding tax on remittances of interest and other financial expenses related to exports is also exempt in certain cases. Third, the many expenses incurred in maintaining a foreign sales operation are deductible, including: foreign market surveys and research, advertising, promotion, the rent of stands, and the maintenance of foreign branch offices, warehouses, depositories, etc."
- 7. Under the Industrial Development Council (CDI) assistance program, projects of interest to the national economy are granted incentives for approved investment projects. Projects considered to be of national interest, according to the petition, are generally those which involve definitive transfer of new technology, import substitution, and increased exports. Companies operating projects approved under this program receive additional revaluation or accelerated depreciation of fixed assets, which is deductible for income tax purposes, and a longer time limit for setting off tax losses; preferential financial support from official credit agencies; and exemption from or reduction in tax on the import of equipment or raw materials and IPI credits.

- 8. There are two major programs designed to promote development in economically depressed and underdeveloped regions of Brazil. They are administered by SUDENE (Northeastern Regional Development Authority) and SUDAM (Amazon Regional Development Authority). Approved programs are eligible for the following benefits: Federal tax exemption for imported equipment; total exemption from income tax and surtaxes for up to 15 years for any new industrial development which is the first of its kind in the region; a 50-percent income tax reduction for industries established later and for ongoing industrial installations; the right to tax money investments of other corporate entities deposited in the corresponding regional investment funds; loans or loan guarantees from Government development banks and authorization by approved industries for importation of equipment without exchange cover.
- 9. The Government of Brazil is promoting the growth of the country's productive base through the development of an infrastructure which includes the building of railroads, ports, and highways. This infrastructure is being developed, according to the petition, primarily for use by the steel industry.

The petitioners' estimate of the bounties or grants are shown in the following tabulation:

Alleged bounty or grant	(Percent	ad valorem)
IPI tax exemption and credit		15.0
Preferential working capital financing		.3-49.2
Income tax exemption for export profits		4.0
Employee training deduction		•3
Government investment incentives for the		*
steel industry		4.8
Reduction or exemption from income tax for		
foreign market expenditures		1/
Government assistance through Industrial		
Development Council:		
Accelerated depreciation		3.9
Preferential loan rates		.78
Reduction or exception from tax on		
imports		1/
Regional development incentives		$\overline{1}/$
Infrastructure development		$\overline{1}$ /
Total known		0-78.0

1/ Unknown.

France

The petition alleges that the French Government provides a variety of subsidies or grants to manufacturers and exporters of prestressed concrete $_{\rm A-7}$

steel wire strand. These bounties or grants, which are alleged to be equivalent to 19.6 percent of the value of such merchandise, are described below:

- 1. The French Bank for Foreign Commerce is both a regular commercial bank and the official French export credit bank. This bank, however, has no decision-making authority in the export credit area. This authority is exercised by the French Insurance Co. for Foreign Commerce and by the Directorate of Foreign Economic Relations, two agencies of the French Government. Transactions approved by these agencies for participation in loans from this bank are routinely approved by the bank. The interest rates on these loans, according to the petition, are below the rates available commercially, and thus, would constitute a bounty or grant.
- The French Insurance Co. for Foreign Commerce, a quasi-public company, offers firms export credit insurance, exchange risk insurance against losses from exchange-rate fluctuations, and inflation risk insurance. The premiums for these insurance policies are allegedly insufficient to cover costs.
- 3. In October 1978, the French Government enacted a plan to restructure the three big steel producers, including Usinor. The plan includes the conversion of debt into equity, the writeoff of bank service charges, and the refinancing of loans.
- 4. The European Coal & Steel Community (ECSC) provides loans for individual Community steel companies at interest rates which are lower than commercial rates.
- 5. Subsidies by the French Government and the ESCS to the coal industry ultimately benefits the French steel industry and the export of prestressed concrete steel wire strand to the United States.
- 6. The French steel industry, according to the petition, has an overabundance of workers. The French Government and the ESCS implement a number of programs to help alleviate this problem. In certain cases, these programs provide severance pay, unemployment benefits, and early retirement incentives which otherwise would have to be paid by the employer.

The alleged bounties or grants are summarized in the following tabulation:

Alleged bounty or grant	(Percent ad valorem)		
French export credit scheme	7 <u>.</u>	56	
Export credit insurance		. 80	
Aid to restructure the steel indus	stry 8.	33	
ECSC aid	and was also was take and the was the major and the time and the time the	23	
Aid to the coal industry	1.	85	
Labor subsidy		87	
Total		64	

The United Kingdom

According to the petition, prestressed concrete steel wire strand produced in the United Kingdom is being sold in the United States at prices which are below the prices at which comparable products are sold in the United Kingdom. The alleged margins of sales at LTFV, as presented in the petition, ranged from 22 to 31 percent in 1981.

The U.S. Market

The first practical application of prestressed concrete is credited to Eugene Freyssinet of France in 1928. Prestressed concrete began to be widely used in bridge construction in Europe shortly after World War II; the first major prestressed concrete bridge in the United States was built in 1950. Demand for prestressed concrete (and consequently for steel wire strand for prestressed concrete) has increased steadily since that time, as prestressed concrete has replaced structural steel as a building material in many applications, due to its lower cost and greater strength than reinforced concrete. In addition, construction with prestressed concrete requires less steel and less concrete than other methods of constructing columns, beams, walls, panels, and floor and roof slabs.

According to the Prestressed Concrete Institute (PCI), prestressed concrete accounted for 7 percent of total U.S. construction of walls, floors, and roofs in 1973. PCI projects that in 1982, prestressed concrete will account for 30 percent of such construction. Prestressed concrete accounts for approximately 60 percent of the dollar sales of the portland cement industry. However, only 2.5 percent of U.S. production of steel wire rod, the basic raw material used in the production of prestressed concrete steel wire strand, was used for this purpose in 1981.

Both domestic producers and importers sell steel wire strand for prestressed concrete directly to about 200 prestressed concrete contractors, which together operate more than 400 plants, which either produce the concrete unit containing strand at a factory and then transport and install it at the building site (pretensioning), or transport the strand to the building site, where it is installed and tensioned within the concrete unit which has been poured on site (posttensioning). Pretensioning contractors accounted for about 75 percent of the market and posttensioning contractors, of which there are about 10, which accounted for about 25 percent of the market in 1981.

U.S. consumption of prestressed concrete steel wire strand increased irregularly from 217 million pounds in 1966 to 441 million pounds in 1973, representing an average annual rate of growth of 10.7 percent. There was a strand shortage in 1973 and 1974, which was a peak period for heavy construction in the United States. In response to the chaotic market conditions which existed at that time--higher prices, longer delivery times, and no certainty regarding sources of supply--strand production capacity was expanded both in the United States and in other countries. This expansion was followed by the 1975 recession, which had a particularly severe impact on major construction projects and, consequently, depressed demand for

prestressed concrete strand. U.S. consumption of strand fell by 48 percent from 1973 to 1976, when it totaled 229 million pounds, and subsequently * * * to * * * million pounds in 1981, or by an * * * during 1976-81. The level obtained in 1981 was * * * the level obtained during * * * 1973, as shown in figure 2 and the following tabulation (in million of pounds) 1/:

Year	Consumption	:	Year	:	Consumption
:		:		:	
1966:	217	: 1974	4	-:	433
1967:	205	: 1975	5	-:	254
1968:	257	: 1976	5	-:	229
1969:	244	: 1977	7	-:	291
1970:	351	: 1978	3	-:	375
1971:	1/	: 1979)	-:	***
1972:		: 1980)	-: ·	***
1973:			L		***
************** *		:		:	

^{1/} Not available.

According to projections by the Prestressed Concrete Institute and by Frederick Hunt, vice president of Florida Wire, 2/ U.S. consumption of prestressed concrete steel wire strand is expected to increase at a rate of 5 to 6 percent per year for the next few years. Mr. Hunt projects that during the next 2 years, U.S. consumption of strand will grow in the following markets: bridges, interstate highways, condominiums, apartments, parking garages, Government buildings, and airports. U.S. consumption of prestressed concrete is cyclical; consumption is strongest during the spring, summer, and autumn months, and decreases during the winter, as shown in figure 3.

U.S. Producers

There are currently eight firms which produce prestressed concrete steel wire strand in the United States. The names of the producers, their plant locations, and their shares of shipments in 1981 are presented in table 1.

^{1/} Steel Wire Strand for Prestressed Concrete from Japan: Determination of Injury in Investigation No. AA1921-188 . . ., USITC Publication 928, November 1978.

^{2/} Transcript of the conference, p. 48.

Figure 2.—Prestressed concrete steel wire strand: U.S. consumption, 1966-81.

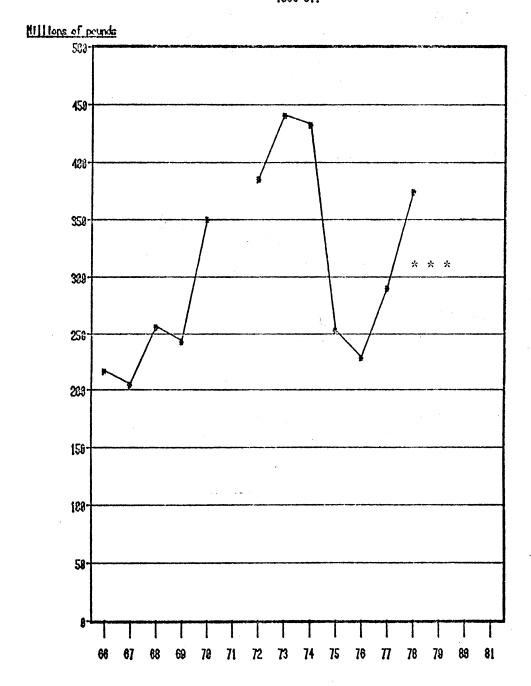
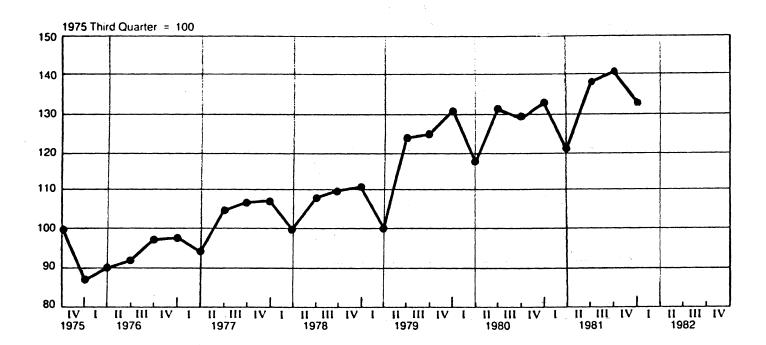


Figure 3.--Prestressed Concrete Institute's business volume indicator, by quarters, July 1975-December 1981.



Source: Prestressed Concrete Institute.

Table 1.--Prestressed concrete steel wire strand: U.S. producers' plant locations, period production began, and share of shipments in 1981

Firm :	Plant location	Period production began	Share of 1981 shipments
:		:	: Percent
Amorican Spring Wive Corn	Bedford Heights, Ohio	: : 1975	: · ***
American Spring Wire Corp: Armco Inc:	Kansas City, Mo.	: 1950	•
Bethlehem Steel Corp:	• •	: 1958	
CF&I Steel Corp:	Pueblo, Colo.	: 1/	: ***
Florida Wire & Cable Co:	Jacksonville, Fla.	: 19 7 6-77	: ***
Pan American Ropes, Inc:	Houston, Tex.	: 1980	: ***
Shinko Wire American Inc:	Houston, Tex.	: 1980	: ***
Sumiden Wire Product Corp:	Stockton, Calif.	: 1980	: ***
Total:	_	: -	: 100.0
:		:	:

^{1/} Not available.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from information submitted by counsel for the petitioners.

* * * * * * * *

Three of the companies (Armco, Bethlehem, and CF&I) are integrated steel producers manufacturing a wide range of steel products, including wire rod. The remaining five producers are independent producers which purchase wire rod for use in fabricating strand and other wire products. In 1981, the integrated producers accounted for * * * percent of total U.S. producers' shipments, and the independent producers accounted for * * * percent of shipments.

Steel wire strand for prestressed concrete was first produced in the United States in 1950 by Union Wire Rope Co. of Kansas City, Mo. (now owned by Armco). Bethlehem began production of this product in 1958. By 1960, about 11 companies produced this product in the United States; most of these companies ceased production in the late 1960's. Between 1970 and 1973, five additional plants producing prestressed concrete steel wire strand ceased production as follows: Laclede Steel Co. (St. Louis, Mo.), Wire Rope Corp. (St. Joseph, Mo.), and U.S. Steel (New Haven, Conn.; Waukegan, Ill.; and Pittsburg, Calif.). In June 1974, CF&I closed its plant at Roebling, N.J., one of the largest prestressed concrete strand production facilities in the United States. The facility was offered for sale intact, but no buyers were found for it on that basis, partially because the general view in the industry was that it was an inefficient plant. Accordingly, the Roebling stranding equipment was sold separately to Bethlehem * * *.

In 1974, Bethlehem * * *.

In mid-1978, Washburn Wire Products, Inc., a Federally financed minority-owned enterprise, was established to produce prestressed concrete steel wire strand in Harlem in New York City. In 1978, this firm secured a contract to supply this product to Amtrak for use in the manufacture of concrete ties in the Northeast corridor. The firm had a rated capacity to produce * * * million pounds of prestressed concrete steel wire strand in 1978; two-thirds of this capacity was dedicated to the Amtrak contract. Washburn's bid for this business was well below the next lowest bid, which was submitted by Florida Wire. According to counsel for Florida Wire, at the beginning of the delivery period under the contract, Washburn was not able to meet the quality requirements of the specifications. To perform its contractural obligations, Washburn purchased prestressed concrete steel wire strand from Florida Wire at the latter's price. After a time, Washburn was able to meet the quality standards, and for a period of about 6 months the company made deliveries to Amtrak from its own production. Quality and financial problems continued, however, and on January 30, 1981, the firm filed for bankruptcy. In September 1981, the firm's assets were sold in a bankruptcy sale.

In 1980, Shinko Wire Corp., Ltd., and Sumitomo Electric Industries, Ltd., * * * two * * * Japanese producers of prestressed concrete steel wire strand, opened production facilities in the United States. These two firms accounted for about * * * percent of the imports of prestressed concrete steel wire strand which were found to be sold at LTFV during the 1978 antidumping investigation. The two new U.S. plants opened by these firms are located in Texas and California, two prime markets for prestressed concrete steel wire strand, and utilize the most modern and up-to-date machinery. Pan American, a firm which began to produce small quantities of the product in 1980, plans to * * *. In May 1981, a Canadian steel concern, Ivaco, acquired a * * * percent interest in Florida Wire, the largest U.S. producer of the strand.

Foreign Producers

Brazil

One firm, Companhia Siderurgica Belgo-Mineira, produces prestressed concrete steel wire strand in Brazil and exports it to the United States. Belgo-Mineira is a large integrated steel producer, which began producing strand in 1962. The company's production of prestressed concrete steel wire strand * * * by * * * percent, from * * * million pounds in 1979 to * * * million pounds in 1981 (table 2). In 1981, Belgo-Mineira utilized * * * percent of its productive capacity. Exports of prestressed concrete steel wire strand from Brazil to the United States accounted for * * * percent of total exports and * * * percent of the production in that country, in 1981.

Table 2.--Prestressed concrete steel wire strand: Belgo-Mineira's productive capacity, production, and exports, 1979-81

Item	1979	:	1980	:	1981	
	· · · · · · · · · · · · · · · · · · ·	:		:		
Capacitymillion pounds:	***	: .	***	:		***
Productiondo:	***	:	***	:		***
Capacity utilizationpercent:	***	:	***	:		***
Exports: :		:		:		
Totalmillion pounds:	***	:	***	:		***
To the United Statesdo:	***	:	***	:		***
Exports to the United States as a :		:		:		
share of:		:		:		
Productionpercent:	***	:	***	:		***
Exportsdo:	***	:	***	:		***
:		:		. :		

Source: Compiled from data submitted by counsel for Belgo-Mineira.

France

In recent years, the French steel industry has undergone consolidation, resulting in two manufacturing concerns accounting for about 75 percent of total steel production. These two concerns, Usinor and Sacilor, were nationalized by the French Government on November 27, 1981. Both are fully integrated and produce a full line of carbon, stainless, and alloy steel products. Chiers-Chatillon-Gorcy (CCG), a subsidiary of Usinor, is the only French producer of prestressed concrete steel wire strand which exports the product to the United States.

CCG's capacity to produce the strand * * * from * * * million pounds in 1979 to * * * million pounds in 1980 (table 3). This * * * in capacity can be attributed to * * *. This plant * * *. The company reported * * * levels of capacity utilization--* * * percent in 1979, * * * percent in 1980, and * * * percent in 1981. Exports of the strand to the United States accounted for * * * percent of the firm's production and * * * percent of its exports in 1981. The company projects that its sales in 1982 and 1983 will * * * because of * * *. In 1981, CCG sold * * * million pounds of the strand to * * *. The company estimates that in 1982, * * *.

Table 3.—Prestressed concrete steel wire strand: Chiers-Chatillon-Gorcy's productive capacity, production, capacity utilizaton, and exports, 1979-81

Item	1979	1980	1981
	:	:	
Capacity: :	:	:	
Theoreticalmillion pounds:	*** :	***	***
Actualdo:	***	***	***
Production:	*** :	***	***
Capacity utilizationpercent:	*** :	***	***
Exports: :	:	•	
To the United States-million pounds:	*** :	***	***
To the European Communitydo:	*** :	***	***
To other countriesdo:	*** :	***	***
Totaldo:	*** :	***	***
Exports to the United States as a :			
share of:	:	:	}
Productionpercent:	*** :	***	***
Exportsdo:	*** :	***	***
•	:	:	

Source: Compiled from data submitted by Chiers-Chatillon-Gorcy.

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

Another French firm, Fils et Cables d'Aciers de Lens (FICAL), also produces prestressed concrete steel wire strand, and is also a subsidiary of Usinor. This firm has the capacity to produce about * * * million pounds a year of prestressed concrete steel wire strand; however, it does not export the product to the United States.

The United Kingdom

Three firms are known to produce prestressed concrete steel wire strand in the United Kingdom: Allied Steel & Wire Ltd., Bridon Wire Ltd., and Johnson & Nephew (Ambergate) Ltd. Only the last two firms export strand from the United Kingdom to the United States, and Bridon accounts for at least * * * percent of such exports.

Production of prestressed concrete steel wire strand in the United Kingdom * * * from * * * million pounds in 1979 to * * * million pounds in 1980 (table 4). The British Independent Steel Producers Association attributes this * * * to * * *. In 1981, production * * * to * * * million pounds, utilizing * * * percent of the country's * * * million pounds of productive capacity. Because of the * * * the United Kingdom, capacity will * * * by * * * million pounds in 1982, or by * * * percent. The association projects that production in the United Kingdom will * * *.

Table 4.--Prestressed concrete steel wire strand: The United Kingdom's production and exports, 1979-81

Item :	1979 :	1980	1981
Productionmillion pounds-:	***	*** •	***
Exports to:	•	•	
United Statesmillion pounds-:	***	***	***
EC countries:	***	*** :	***
Other countriesdo:	*** :	*** :	***
Totaldo:	*** :	*** :	***
Exports to the United States as a share of :	:	:	
Productionpercent:	*** :	*** :	***
Exportsdo:	*** :	*** :	***
:	:	:	

Source: Compiled from data submitted by the British Independent Steel Producers Association.

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

Importers

Brazil

R.W. Hebard & Associates, Inc., a subsidiary of Belgo-Mineira, is the sole distributor for wire strand imports from Brazil. Virtually all of this firm's imports are back-to-back sales; as a consequence, Hebard inventories only minor quantities of the product. Hebard sells approximately * * * percent of its wire strand imports to service centers or distributors. The remaining * * * percent is distributed equally between pretensioning and posttensioning contractors. Imports by this firm in 1981, by customs districts, as compiled from official statistics of the U.S. Department of Commerce, are presented in the following tabulation:

	Percentage distribution
Customs district	of imports from Brazil
Houston, Tex	
Norfolk, Va	16.8
Miami, Fla	
New Orleans, La	6.8
Philadelphia, Pa	
New York, N.Y	
Subtotal	
All other	7.5
Total	100.0

France

Chiers-Chatillon-Gorcy (CCG) accounted for virtually all U.S. imports of this product from France in 1981. CCG is a subsidiary of the French wire A-17

strand producer, Chiers-Chatillon-Gorcy. Imports from France in 1981, by customs districts, as compiled from official statistics of the U.S. Department of Commerce, are presented in the following tabulation:

	Percentage distribution of
Customs district	imports from France
Houston, Tex	37.2
San Francisco, Calif	33.0
Savannah, Ga	11.0
Charleston, S.C	9.6
Seattle, Wash	7.3
Subtotal	98.1
All other	1.9
Total	100.0

During 1979-81, CCG had a total of * * * customers of prestressed concrete steel wire strand in the United States and sold the strand to * * * of these customers' * * * prestressing plants. These customers are located along the South Atlantic coast, the gulf coast, and the west coast; only * * * of these customers are considered steady customers. CCG maintains that it can retain these customers because of its high-quality strand, its superior service, and its ability to sell strand in sizes other than 1/2 inch. CCG states that it is able to capture sales of 1/2-inch strand to * * *. CCG's sales of strand in these other sizes are presented in the following tabulation:

	Sizes	s other than $1/2$ inch
	as	s a share of total
		sales
Period		(percent)
1979		_ ***
1980		_ ***
1981		_ ***
1982 (January-March)		_ ***

In 1979, * * * percent of CCG's sales were in the other-size category. This share * * * to * * * percent in 1980, * * *. These customers, according to CCG, required long-term price commitments and were slow in paying their bills. In 1981, CCG's sales of the other-size strand * * * to * * * percent of total sales, and in January-March 1982, this share * * * to * * * percent. CCG expects that its sales of the other-size strand * * *.

CCG employs * * * people in its U.S. sales office, * * *. CCG does not advertise its product in the United States and does not take booths at national wire or PCI conventions.

CCG warehouses its product in Charleston, S.C., Houston, Tex., and Tacoma, Wash., and sells from inventory. In its brief, CCG cites * * * instances in which it was unable to make sales because of low-priced competition from other importers and domestic producers. * * * was cited $_{\rm A-18}$ twice as the low-priced supplier.

The United Kingdom

Springfield Industries Corp., a subsidiary of Bridon, accounted for at least *** percent of the subject imports from the United Kingdom in 1981. Springfield imports the largest amount of prestressed concrete steel wire strand from South Africa, and distributes the product directly to pretensioning and posttensioning contractors in major U.S. markets. Imports from the United Kingdom, by customs districts, as compiled from official statistics of the U.S. Department of Commerce, are shown in the following tabulation:

	Percentage distribution of
	imports from the United
Customs district	Kingdom
· · · · · · · · · · · · · · · · · · ·	British Allendaria da Artina da Arti
Houston, Tex	26.1
New York, N.Y	23.1
Chicago, Ill	17.4
New Orleans, La	12.2
Boston, Mass	5.5
Miami, Fla	 4.6
Subtotal	88.9
All other	<u> 11.1</u>
Total	 100.0

Springfield states that its product is superior to U.S.-produced strand because it exceeds the ASTM specifications. In particular, the United Kingdom producer does not weld broken strand together, a practice allowed by the ASTM specification. As a result, Springfield claims that its strand is stronger than U.S.-produced strand. In addition, Springfield states that * * * of its United Kingdom-produced strand has a diameter of 1/2 inch; * * * consists of the less popular sizes, for which there is limited U.S. demand and limited U.S. production.

The Question of Alleged Material Injury

To obtain information for this section of the report, the Commission sent questionnaires to all known U.S. producers of prestressed concrete steel wire strand requesting data for the years 1979-81. Data on capacity, production, capacity utilization, producers' shipments, inventories, employment, hours worked, profit—and—loss experience, research and development, and capital expenditures obtained by the Commission from questionnaires in prior investigations on prestressed concrete steel wire strand for the years 1974-78 are also presented. As stated in the U.S. market section of the report, 1973 and 1974 were peak years for heavy construction in the United States and apparent consumption of strand was at record high levels in those two years.

Except for * * *, all producers responded to each section of the questionnaires. * * *, which accounted for * * * percent of shipments in 1981, provided the Commission with data only on its shipments and $$_{\rm A-19}$$ capacity. In addition, the Commission did not collect information from Washburn, which went out of business in 1981. This firm is discussed in the section of this report on U.S. producers.

U.S. producers' capacity and production

U.S. producers' capacity to produce prestressed concrete steel wire strand increased from 134 million pounds in 1974 to * * * million pounds in 1981, representing an average annual rate of increase of * * * percent (table 5). About * * * of this increase in productive capacity can be attributed to the steady expansion of Florida Wire from an annual capacity of * * * million pounds in 1974 to * * * million pounds in 1981. * * * the increase in productive capacity in the United States can be attributed to the opening of new plants by American Spring Wire in 1975 (* * * million pounds annual capacity), Sumiden in 1980 (* * * million pounds), and Shinko in 1980 (* * * million pounds).

Table 5Prestressed	concrete stee	l wire	strand:	U.S.	producers'	capacity
	and product	ion, <u>1</u> /	/ 1974-81			

•	•		: Capacity
Year	Capacity	Production	: utilization
	Million	pounds	: Percent
:			:
1974:	134 :	119	: 89
1975:	130 :	77	: 59
1976:	177 :	78	: 44
1977:	181 :	92	: 51
1978 2/:	198 :	153	: 77
1979:	*** :	***	: ***
1980:	*** :	***	: ***
1981:	*** :	***	: ***
•	:		:

^{1/} Data do not include * * * pounds of annual capacity reported by * * * for 1980 and 1981, because this firm did not report data on production.

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

U.S. production of prestressed concrete steel wire strand decreased substantially from 119 million pounds in 1974, a year of shortages in the strand market, to 77 million and 78 million pounds in 1975 and 1976, respectively. U.S. production subsequently recovered to 92 million pounds in 1977 and thereafter increased fairly steadily to * * * million pounds in 1981, increasing at an average annual rate of * * * percent from 1977 to 1981. All producers except * * reported increases in production from 1979 to 1981 (table 6).

Table 6.--Prestressed concrete steel wire strand: U.S. producers' capacity and production, by firms, $\frac{1}{1979-81}$

* * * * * * A-20

^{2/} Estimated by the staff of the U.S. International Trade Commission by multiplying data for January-August 1978 by 12/8.

Utilization of U.S. producers' capacity to produce prestressed concrete steel wire strand decreased dramatically from 89 percent in 1974 to 59 percent in 1975 and 44 percent in 1976. With the recovery of the construction industry in 1977 and 1978, capacity utilization increased to 51 and 77 percent, respectively. Utilization subsequently decreased to * * * percent in 1981, because the addition of new capacity outpaced the increase in production. * * * state that the efficiency of their strand-producing machinery decreases when such machinery is operated at levels above 80 to 85 percent of capacity. When utilization of capacity reaches these levels, these firms state that they prefer to add new machinery rather than operate the existing machinery at higher levels. 1/

In 1982, * * * plans to add * * * million pounds to its capacity to produce prestressed concrete steel wire strand, Sumiden plans to add 15 million pounds of capacity, and * * * expects to increase its productive capacity. $\underline{2}/$

U.S. producers' shipments

U.S. producers' shipments of prestressed concrete steel wire strand followed the same trend as production, decreasing from 1974 to 1975 and increasing since then (table 7). U.S. producers' shipments increased at an annual average rate of * * * percent from 1975 to 1981. Exports accounted for only a minor share of U.S. producers' shipments during 1974-81.

Table 7.--Prestressed concrete steel wire strand: U.S. producers' shipments, 1974-81

Year	:	Domestic	:	Export	:	Total
	:		:		:	
1974	:	117	:	3	:	120
1975	:	73	:	2	:	74
1976	:	80	:	1	:	81
1977	:	91	:	1	:	92
1978 1/	:	151	:	1	:	152
1979	:	***	:	***	:	***
1980	:	***	:	***	:	***
1981	:	***	:	***	:	***
	:		:		:	

1/ Estimated by the staff of the U.S. International Trade Commission by multiplying data for January-August 1978 by 12/8.

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

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

^{1/} Telephone conversation, Apr. 5, 1982, Laszlo Boszormenyi.

^{2/} Information on * * * expansion plans were obtained from questionnaire data; Sumiden's expansion plans were obtained from Wire Journal International, Nov. 1981, and * * * expansion plans from a letter from Eugene Stewart to Laszlo Boszormenyi dated Mar. 15, 1982.

Inventories

Yearend inventories of prestressed concrete steel wire strand held by U.S. producers increased from 3.0 percent of shipments in 1974 to 10.5 percent in 1975 (table 8). Yearend inventories subsequently decreased to 5.7 percent of shipments in 1976 and * * *.

Table 8.--Prestressed concrete steel wire strand: U.S. producers' shipments and inventories, 1974-81

V	:		:	T		Inventories
Year	: 5	nipments	:	Inventories		
	<u>: </u>	;	:_		_	of shipments
	:	<u>1,00</u>	00 p	ounds	:	Percent
	:		:		:	
1974	:	120,419) :	3,608	:	3.0
1975	:	74,103	3 :	7,806	:	10.5
1976	:	81,253	3 :	4,608	:	5.7
1977	:	91,599) :	5,029	:	5.5
1978	:	1/ 151,700) :	2/ 7,806	:	5.1
1979	:	3/ ***	:	***	:	***
1980	:	3/ ***	:	***	:	***
1981	:	3/ ***	:	***	:	***
	:		:		:	

^{1/} Estimated by the staff of the U.S. International Trade Commission by multiplying data for January-Aug. 1978 by 12/8.

Employment

There were * * * production and related workers engaged in the production of prestressed concrete steel wire strand in 1981 than in 1974 (table 9). However, the total number of hours worked * * * from 672,000 in 1974 to * * * in 1981. The average number of hours worked per employee * * * from 1,971 hours in 1974 to * * * hours in 1981, * * *. Productivity * * * throughout the period, * * * from 176 pounds per hour in 1974 to * * * pounds per hour in 1981. The average total compensation received by employees in the prestressed concrete steel wire strand industry * * * from * * * in 1979 to * * * in 1981. The average total compensation received by the employees of * * * (table 10). * * * *.

^{2/} As of August 31, 1978.

 $[\]overline{3}$ / Excludes shipments of 2 companies, * * *, which did not report inventories.

Table 9Average number of U.S. production and related workers engaged	in	the
manufacture of prestressed concrete steel wire strand, hours worked b	y	
such workers, wages paid, total compensation, and productivity, 1974-	31	

Year :	Workers	: : : : : : : : : : : : : : : : : : : :	Hours worked	: : :	Wages paid	:	Total compen- sation	:	Productivity
:	Number	:	1,000	:	Per hour	:	Per hour	:	Pounds per hour
:		:		:		:		:	
1974:	341	:	672	:	1/	:	1/	:	176
1975:	238	:	461	:	$\overline{1}/$:	$\overline{1}/$:	168
1976:	270	:	581	:	$\overline{1}/$:	$\overline{1}$ /	:	134
1977:	278	:	584	:	$\overline{1}/$:	$\overline{1}/$:	158
1978:	2/ 320	:	3/ 564	:	$\overline{1}$ /	:	$\overline{1}$ /	:	3/ 270
1979:	***	:	***	:	***	:	***	:	- ***
1980:	***	:	***	:	***	:	***	:	***
1981:	***	:	***	:	***	:	***	:	***
:		:		:		:		:	

^{1/} Not available.

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

Table'10.—Average number of U.S. production and related workers engaged in the manufacture of prestressed concrete steel wire strand, hours worked by such workers, wages paid, total compensation, and productivity, by firms, 1979-81

Financial experience of U.S. producers

Total sales of U.S producers of prestressed concrete steel wire strand decreased from \$28 million in 1974 to \$25 million in 1975 (table 11). This decrease in sales can be attributed to a 38-percent decrease in the quantity sold. Prices of prestressed concrete steel wire strand decreased sharply in 1976, and as a result, net sales decreased again to \$21 million. Net sales subsequently * * * each year, to * * * million in 1981, due to the * * *.

Net income before taxes decreased from a profit of \$6.0 million in 1974 to a loss of \$2.1 million in 1977. As a share of sales, net income decreased from a positive 21.3 percent in 1974 to a negative 8.5 percent in 1977. The sharp decline in profitability of the domestic producers in 1976 and 1977 was partially the result of the decline in the average unit selling price which began in 1976 and continued in 1977, but the average unit cost to manufacture

 $[\]overline{2}$ / Data reported for Janaury-August 1978.

^{3/} Estimated by the staff of the U.S. International Trade Commission by multiplying data for January-August 1978 by 12/8.

Table 11.--Profit-and-loss experience of U.S. producers on their operations on prestressed concrete steel wire strand, 1974-81

Year :	Net sales	Cost of goods sold	Gross profit :	General, : selling, and : administrative : expenses :	Net operating profit or (loss)	Other expense	Net profit or (loss) before taxes	: Katio of : : net profit : : or (loss) to: f : net sales :	Number of irms reporting a loss
••		•		1,000 dollars	lars	•		Percent :	
1974:	28,063 :	20.328	7 735 .	. 673 1			•	••	
1975:	24,636:	17.940 :	. 969.9	1,073	: 790,0	(83) :	5,979	21.3	0
1976:	20, 905	19 575	1 330	. 906,1	. 00/*+	(125)	4,663 :	18.9	0
1977	24.848	. 176 76	: 050,1	1,942 :	(612) :	(198)	(810):	: (3.9)	
1978 1/	41 960 .	37 416	. 700	2,314 :	(1,727):	: (388)	(2,116):	(8.5) :	5
1979-	****	: 0T% /C	4,044	2,974:	1,570 :	(434):	1,136 :	2.7 :	2
1980	***	* *		* *	***	**	***	***	***
1981	. * * *			* ***	**	***	***	***	**
	• •	•		K K K	**	***	***	***	***
1/ Estima	ed by the	Estimated by the staff of the II & International	- 1	:	. [••	••	••	
1	· · · · ·	1000000		itage commission by multiplying data for January-June 1978 by Z.	multiplying data	for January-June 1	978 by 2.		

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

strand during the same period increased. One of the components of the increase in average unit cost to manufacture strand was the increase in the price of domestic wire rod, the basic raw material in strand production, between 1975 and 1976. Expenses related to production downtime in 1976 and 1977 also contributed to the poor financial performance of the domestic industry in those years.

U.S. producers' net profit recovered to \$1.1 million, or 2.7 percent of sales, in 1978 and * * * million, or * * * percent of sales, in 1979. Net profit * * * to * * * in 1980, or * * * percent of sales. The * * * in profitability in 1980 can be attributed, in part, to the * * * (table 12). In 1981, net profit for all firms * * * to * * *, or * * * percent of net sales. * * *.

Table 12.--Profit-and-loss experience of U.S. producers on their operations on prestressed concrete steel wire strand, by firms, 1979-81

* * * * * * * *

Return on investment.—Data on U.S. producers' assets used in the production of prestressed concrete steel wire strand are presented in table 13. U.S. producers return on investment, as measured by the ratio of net profit before taxes to original cost of assets, decreased from 21.7 percent in 1979 to 0.3 percent in 1981.

Table 13.—Investments in assets used in productive facilities by U.S. producers of prestressed concrete steel wire strand, as of the end of accounting years 1979-81

Item	1979	:	1980	:	1981
:		:		:	
Original costthousand dollars:	***	:	***	:	***
Book valuedo:	***	:	***	:	***
Net profit before taxesdo:	***	:	k **	:	***
Ratio of net profit before taxes to :		:		: '	
Original costpercent:	***	:	***	:	***
Book valuedo:	***	:	***	:	***
• • • • • • • • • • • • • • • • • • •		:		:	

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

Cash flow from operations.--Cash flow generated from U.S. producers' operations on prestressed concrete steel wire strand, as shown in table 14, * * * from * * * million in 1979 to * * * million in 1980, or by * * * percent. The cash flow generated from these operations then * * * in 1981 to * * * million.

Table 14.--Cash flow from U.S. producers' operations producing prestressed concrete steel wire strand, 1979-81

(In thousands of d	lollars)		
Item	1979	1980	1981
Net operating profit:	***	***	***
Depreciation and amortization:	*** :	*** :	***
Cash flow:	*** :	***	***
	:	. :	

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

Research and development and capital expenditures

U.S. producers spent approximately * * * per year during 1974-81, or a total of * * * million, on research and development expenditures connected with prestressed concrete steel wire strand (table 15). During this period, two U.S. producers * * *.

Table 15.--Prestressed concrete steel wire strand: U.S. producers' research and development and capital expenditures, 1974-77 and 1979-81 1/2

Year	:	Research and development		:	Capital
	:		:	:	
1974	:		488	:	1,623
1975	:		476	:	3,709
1976	:	gradient de la companya de la compan	472	:	2,405
1977			407	:	1,683
1979			***	:	** *
1980	:		***	:	***
1981	:		***	:	***
Total	:	×	***	:	***
	•			:	

1/ Data for 1978 are not available.

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

U.S. producers of prestressed concrete steel wire strand spent * * * million on capital improvements during 1974-81. * * *, which expanded its productive capacity during the period from * * * million pounds in 1974 to * * * million pounds in 1981, accounted for * * * percent of the capital expenditures, and * * * accounted for * * * percent of such expenditures. * * *, which opened its plant in * * *, accounted for * * * percent of capital expenditures in *** and accounted for * * * percent of such expenditures during 1974-81. * * *, which * * * in * * *, together accounted for * * * A-26 percent of capital expenditures in * * * and * * *, and accounted for * * * and * * * percent, respectively, of total expenditures during 1974-81.

Consideration of the Causal Relationship Between Allegedly Subsidized Imports and Imports Allegedly Sold at LTFV and the Alleged Injury

U.S. imports

Total U.S. imports of prestressed concrete steel wire strand decreased from 316 million pounds in 1974 to 149 million million pounds in 1976 (table 16). Total U.S. imports subsequently increased to 200 million pounds in 1977, 224 million pounds in 1978, and 226 million pounds in 1979. Such imports decreased by 21 percent to 178 million pounds in 1980 and decreased further, by 19 percent, to 143 million pounds in 1981. The level of imports in 1981 was less than one-half the level attained in 1974.

Imports of prestressed concrete steel wire strand account for an important but decreasing share of U.S. consumption. As a share of U.S. consumption, total imports decreased irregularly from 73 percent in 1974 to * * * percent in 1981 (table 17 and figure 4).

Japan is the largest source of imports of this product to the United States; imports from that country accounted for more than 88 percent of total imports during 1974-77. Beginning in 1978, the year in which a dumping order was issued concerning imports of this merchandise from Japan, imports from Japan decreased sharply. In 1981, imports from Japan were less than one-quarter the level attained in 1974 and accounted for 41 percent of total imports. Imports of prestressed concrete steel wire strand from all countries decreased by 80 million pounds from 1978 to 1981, and imports from Japan decreased by 98 million pounds during the same period. Data on quarterly imports of prestressed concrete steel wire strand are presented in tables 18 and 19.

Brazil.--Imports of prestressed concrete steel wire strand from Brazil totaled 2 million pounds in 1974 and 1 million pounds in 1975, accounting for 0.5 percent and 0.6 percent, respectively, of U.S. consumption in those years. Imports fell to 18,000 pounds, or 0.008 percent of U.S. consumption, in 1976. In 1977, no imports of prestressed concrete steel wire strand entered the United States from Brazil. Imports from Brazil totaled 10 million pounds in 1978 and increased to 13 million pounds in 1979, before falling to 8 million pounds in 1980. In 1981, imports increased again to 14 million pounds. As a share of U.S. consumption, imports from Brazil constituted 2.8 percent in 1978, * * * percent in 1979, * * * percent in 1980, and * * * percent in 1981.

Table 16.--Prestressed concrete steel wire strand: U.S. imports for consumption, by principal sources, 1974-81

Þ	Imports under investigatio	r investiga	tion from:	: -qng	Imports from-		Sub-	Imports fi	from:	F
1891	Brazil :	France	The United: Kingdom:	total 1/ :	Spain So	South Africa	total 2/ :	Japan :	Other :	10041
••					Quantity (1,000 pounds)	(spunod 00				
••		••	••	•	•	•	•		••	
1974:	2,294:	718 :	1,115:	4,127 :	190:	28:	4,345:	295,304:	16,395:	316,044
1975:	1,436:	527 :	334 :	2,297 :	351:	. 0	2,648:	166,750:	13,011:	182,409
1976:	18:	. 0	233 :	251 :	230 :	156:	637 :	139,096:	9,020	148,753
1977:		. 0	2,259:	2,259:	92 :	5,249:	7,600:	176,452:	15,711:	199,763
1978:	10,403:	2,027 :	5,523:	17,953:	17,449 :	10,222 :	45,624 :	157,727 :	20,196:	223,547
1979:	12,704 :	3,343:	6,741:	22,788:	13,810:	16,825:	53,423:	151,600:	20,846:	225,869
1980:	7,809:	2,352:	920	10,811:	15,638:	16,682 :	43,131	126,205:	8,771:	178,107
1981:	13,680:	6,148:	9,809:	29,637 :	21,064:	17,813:	68,514:	59,315:	15,597 :	143,426
•• ••					Value (1,0	Value (1,000 dollars)			-	-
••	••	••	••		.		••			
1974:	564 :	185 :	220 :	: 696	: 99	. 7	1,042:	67,589:	4,834:	73,465
1975:	432 :	338:	103:	873 :	209		1,082:	52,973:	4,510:	58,565
1976:	. 4	1	: 87	52 :	39 :	22 :	113 :	28,662:	1,778:	30,553
1977:		1	470 :	470 :	15:	962 :	1,447 :	34,372 :	3,027 :	38,846
1978:	2,257 :	562 :	1,301:	4,120:	3,272:	2,282 :	9,674:	37,581:	4,872:	52,127
1979:	3,072:	885:	1,860:	5,817 :	3,407 :	4,545 :	13,769:	46,344:	5,672:	65,785
1980:	1,899:	999	183:	2,747 :	3,968:	4,737 :	11,452:	36,316:	2,534:	50,302
1981:	3,335 :	1,731:	2,752:	7,818:	5,118:	4,863:	17,799:	17,414:	4,117:	39,330
••	••	••	••	••	••	••	••	••	••	

1/8razil, France, and the United Kingdom. 2/8razil, France, the United Kingdom, Spain, and South Africa.

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

Table 17.--Prestressed concrete steel wire strand: U.S. imports and U.S. producers' shipments as a share of consumption, 1974-81

					ıI)	(In percent)						
Vest	Imports unde	er investiga	Imports under investigation from	: -qns	Imports	Imports from	Sub-	Imports from	from		U.S.	
1001	Brazil :	France	:The United : : Kingdom :	#	Spain	South Africa	: total 2/ :	Japan :	South :	Total :	producers' shipments :	Total
1974	.: 0.5	0.2		. 0	3 / 1	3/					••	
1975	9.	.2		. 6.0	. 0.1	૦ તે	1.0 :	65.4 :		73.0 : 71.5 :	27.0:	100.0
1976	: -: -:	0		.1.	.1 :	3/	. 0.2 :	60.7	3.6	6.49	35 1 .	100.0
1977	••	0		 &.	 اع	1.8	2.6:	60.7	5.5 :	68.8	31.2 :	100.0
1978	2.8	5	1.5:	. 8.4	4.7 :	2.7	: 12.2 :	42.1 :	5.3 :	59.6:	40.4	100.0
1980		× +	••	 K 4		* *	**	***	***	***	***	100.0
1001		* 1		 k	k ·	*	***	***	***	***	***	100.0
1301	••	K K	••	 k k	k k	*	***	***	***	***	. ***	100.0
			••	••	••			••	•	•	•	

1/ Brazil, France, and the United Kingdom. $\overline{2}/$ Brazil, France, the United Kingdom, Spain, and South Africa. $\overline{3}/$ Less than 0.05 percent.

Source: Based on data in table 16 and tabulation on p. A-10 of this report.

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

Figure 4.—Prestressed concrete steel wire strand: U.S. imports and U.S. producers' shipments as a share of consception, 1974-81.

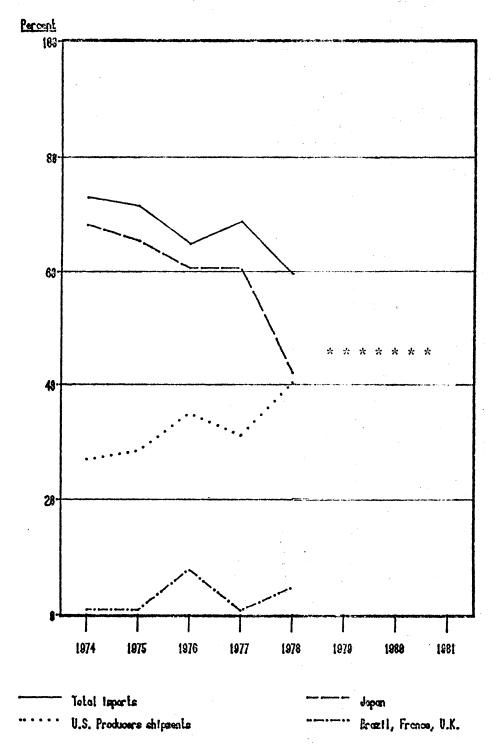


Table 18.--Prestressed concrete steel wire strand: U.S. imports and U.S. producers' shipments, by quarters, 1980 and 1981

				(In thousands of pounds)	od jo spu	(spun						
Period	Brazil	Brazil : France :	United : Kingdom :	Sub-: total:	Spain	South Africa	Sub-: total $1/$:	Japan	Other countries	All : imports :	U.S. producers' shipments	Consump- tion
			••									
: 0861		••	••	••	••	••	••	••	••			
JanMar	_	308 :	345 :	2,503:	6,611:	3,397	12,511:	32,080 :	1,533:	46,123	***	*
AprJune:	2,007	366 :	. 04	2,412:	5,694 :	4,044	12,150:	38,813 :	2,185	53,148	***	***
July-Sept:	1,965	: 677 :	265 :	2,907 :	10:	5,478 :	8,395:	31,934	1,351	41,681	***	**
OctDec:	: 1,987	: 1,022:	. 0	2,989:	3,323:	3,763	10,075	23,379	3,702	37,156	***	**
1981:		••	••	••	••	••	••	••	••		•	
JanMar	2,554	: 1,807:	918:	5,279:	149 :	4,989	10,417:	14,501	2,528	27,446	***	***
AprJune:	4,198	: 2,083:	3,088:	9,369:	7,649:	5,277 :	22,295 :	13,002 :	2.264:	37,561	**	*
July-Sept:	3,411	: 1,598:	2,825:	7,834:	5,869 :	4,385	18,088	17,514 :	3,882	39,484	. ***	**
OctDec:	3,517	: 099 :	2,978:	7,155:	7,396:	3,162 :	17,713:	14,299 :	6,923 :	38,935	**	*
•		••	••	••	••	••	••	••		•	•	
1/ Brazil France the United Kingdom Cos	Inttad Kin	odom Spain	and South Africa	Africa								

Source: U.S. producers' shipments, compiled from data submitted by counsel for the petitioners and by Sumiden and CF&I; and imports, compiled from official statistics of the U.S. Department of Commerce.

Note.--U.S. producers' shipments include exports which accounted for 0.5 percent of total U.S. producers' shipments in 1980 and 1981.

Table 19.—Prestressed concrete steel wire strand: U.S. imports and U.S. producers' shipments as a share of consumption, by quarters, 1980 and 1981

* * * * * * *

France.—Imports of prestressed concrete steel wire strand from France amounted to less than 1 million pounds in 1974 and 1975, accounting for 0.2 percent of U.S. consumption in each of those years. In 1976 and 1977, no imports of this merchandise entered the United States from France. Beginning in 1978, imports from France increased irregularly, from 2.0 million pounds in 1978 to 6.1 million pounds in 1981. Such imports accounted for 0.5 percent of U.S. consumption in 1978, * * * percent in 1979, * * * percent in 1980, and * * * percent in 1981.

The United Kingdom.--Imports of prestressed concrete steel wire strand from the United Kingdom totaled 1.1 million pounds, or 0.3 percent of U.S. consumption, in 1974. Such imports decreased to 334,000 pounds and 233,000 pounds in 1975 and 1976, respectively, accounting for 0.1 percent of U.S. consumption in both years. Imports increased to 2.3 million pounds in 1977, 5.5 million pounds in 1978, and 6.7 million pounds in 1979, accounting for 0.8 percent, 1.5 percent, and * * * percent, respectively, of U.S. consumption. Imports fell to 650,000 pounds, or * * * percent of U.S. consumption, in 1980 and increased to 9.8 million pounds, or * * * percent of U.S. consumption in 1981.

Cumulated imports.—Data on cumulated imports from Brazil, France, the United Kingdom, Spain, and South Africa are presented in tables 16 to 19. Since 1977, the last full year prior to the issuance of the dumping order on strand from Japan, U.S. producers' * * * their share of the U.S. market; the share held by imports from Brazil, France, and the United Kingdom * * *, and the share held by imports from these three countries plus Spain and South Africa * * *, as shown in the following tabulation (in percent):

	Share	of U.S. o	consumption	
Source	1977	:	1981	
	*			
Japan:		60.7 :		***
U.S. producers:		31.2:		***
3 countries 1/:		0.8:		***
5 countries $\overline{2}/$:		2.6:		***
-		:		

^{1/} Brazil, France, and the United Kingdom.

^{2/} Brazil, France, the United Kingdom, Spain, and South Africa.

Prices

U.S. producers and importers quote prices of prestressed concrete steel wire strand in dollars per 1,000 lineal feet. At times, U.S. producers quote f.o.b. mill and importers quote f.a.s. (landed, duty paid) port of entry or f.o.b. importers' warehouse. At other times, because of competition from imports at ports of entry and in adjacent market areas, domestic producers distant from these areas quote delivered prices. Currently, according to purchasers, quoting prices f.o.b. destination is the most prevalent practice by both domestic producers and importers.

Most domestic producers publish list prices, while importers do not. During 1979-81, at least three U.S. producers announced increases in list prices of steel wire strand, the most recent increase being announced in August 1981. 1/ However, according to purchasers, list prices were of little or no significance during the past several years. Discounting from list has been the rule rather than the exception.

U.S. importers and producers sell prestressed concrete steel wire strand directly to the prestressers and the posttensioners. As one importer emphasized, the posttensioning market is so competitive, there is no room for a distributor-middleman. Consequently, both the producers and importers act as distributors by warehousing the strand in strategic market areas.

Most domestic producers employ company salesmen to call on potential customers and solicit orders. * * *.

Trends in prices.—Prices of prestressed concrete steel wire strand climbed steadily in 1978 and peaked in April-December 1979. According to industry sources, a key factor contributing to the increase in prices was the dumping action against strand imported from Japan initiated in March 1978, and the ultimate injury finding against Japanese strand imports in November 1978. In addition, demand for strand increased in 1978 and purchasers scrambled to find alternative sources for strand, domestic or imported, and willingly paid higher prices.

Indexes of prices of domestic strand and strand imported from Brazil, France, and the United Kingdom are presented in table 20 and graphed in figure 5. From a *** index of *** in April-June 1979, the index for U.S.-produced strand * * * to a * * * of * * * in July-September 1980, and then * * * to an index of *** in October-December 1981. The price of strand imported from Brazil and France * * *. The price of Brazilian strand *** approximately * * * percent from an index of * * * in October-December 1979 to a * * * of * * * in October-December 1980, and then * * * to * * * in July-December 1981. The price of French strand * * * from a * * * index of *** in October-December 1979 to a * * * of * * * in October-December 1981, or by * * percent. The price of strand imported from the United Kingdom reflected a * * * during this period. Prices were * * * during most of 1979, * * * to an index of * * * in October-December 1980, and * * * to a * * * in April-June 1981. The index then * * * in October-December 1981.

Table 20.—Prestressed concrete steel wire strand (1/2-inch, 270K, stress relieved, 7 wire): Indexes of weighted average selling prices of U.S.-produced strand and of strand imported from Brazil, France, and the United Kingdom, by quarters, 1979-81

(January-March 1979=100) United United : Period Brazil France States Kingdom 1979: *** *** *** : *** January-March----*** *** *** : *** . April-June----: *** *** *** *** July-September----: *** *** October-December-----*** : *** 1980: *** *** January-March-----*** *** *** *** : *** : *** April-June----: *** *** July-September-----October-December----: *** *** • *** 1981: January-March-----*** *** *** *** *** *** April-June-----*** *** *** : July-September-----*** *** October-December-----

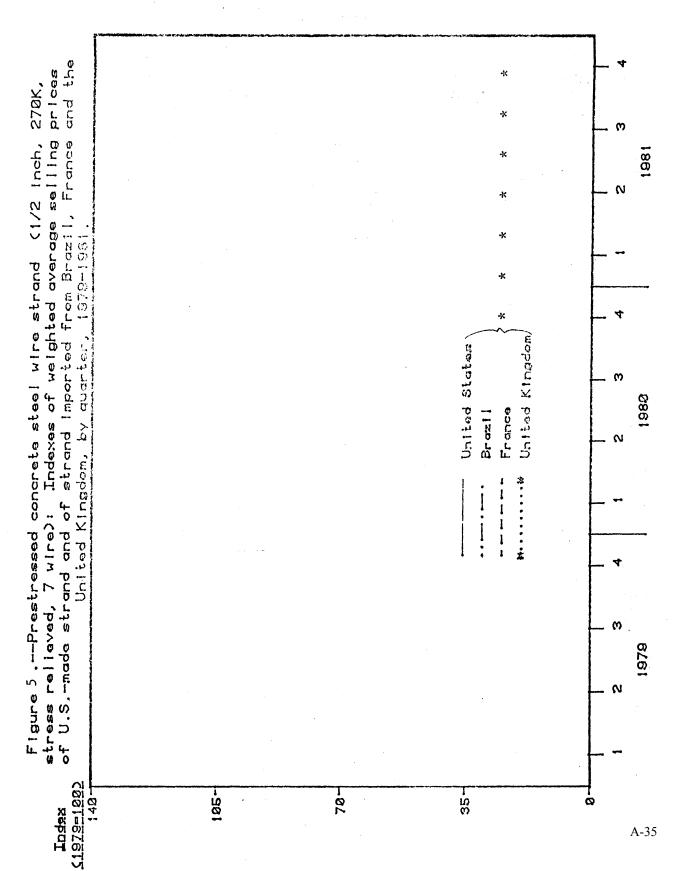
Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Contacts with purchasers of prestressed concrete strand indicate that prices of the strand have decreased in 1982. Specifically, producers have reported that prices quoted by importers for April-June delivery are 2 to 5 percent below the October-December 1981 price level, and that domestic producers are discounting to meet these prices. 1/

Transaction prices.—The Commission sent questionnaires to U.S. producers and importers requesting information concerning actual sales transactions during 1979-81. Prices, f.o.b. point of shipment were requested for a representative grade of strand 2/ for the largest shipment of that product to each of the firms' four largest customers. Price data were received from seven domestic producers and the three importers which account for the bulk of the imports from each of the three countries which are the subject of these investigations. The aggregated data are presented in table 21 and graphed in figure 6.

¹/ See field notes, Mar. 15-17, Houston, Tex., p. 6, and transcript of the conference, p. 35.

²/ The selected representative strand product, 1/2", 270K, stress relieved, 7-wire strand, accounts for the bulk of domestic shipments and of imports. Importers and domestic producers agree that this product, whether imported or domestic, meets the same ASTM specifications, is used for the same purposes, and competes in the same market.



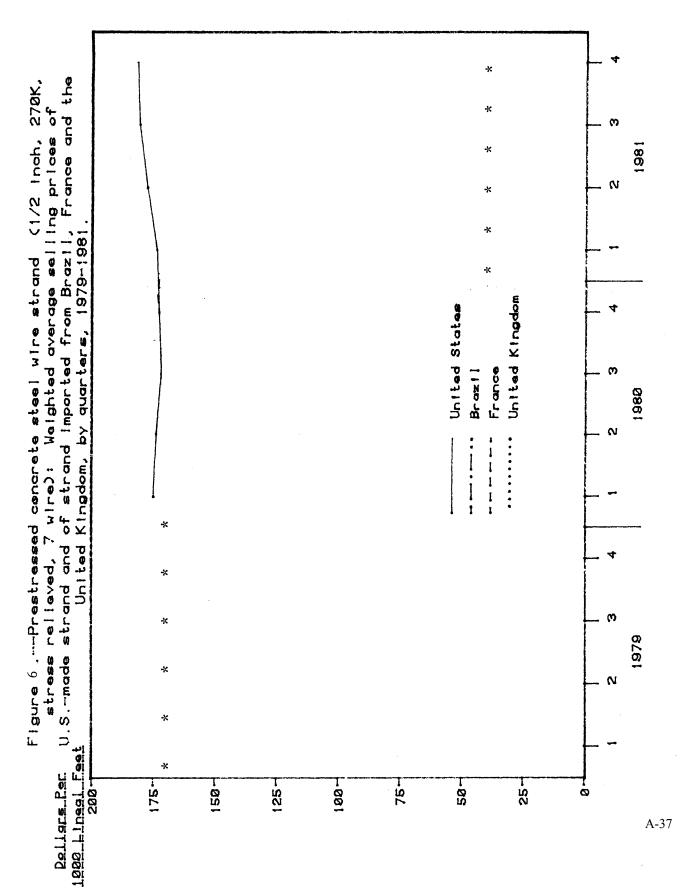
Source: Based on data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 21. --Prestressed concrete steel wire strand (1/2-inch, 270K, stress relieved, 7 wire): Ranges of selling prices and weighted average selling prices of U.S.-produced strand and of strand imported from Brazil, France, and the United Kingdom, by quarters, 1979-81

••	7		Net	Net selling prices of	prices of			••	Avei	Average margins of underselling or	ns of g or
·• ••	9	. Prompt of or		<i>5</i> ,	Strand im	Strand imported from		••	ove	overselling (-) by imports from	(-) by
	で ・	ייי פרוקוות	Brazil	11:	Fra	France	United Kingdom	ingdom			United
•••	Range	:Weighted:	Range	:Weighted:	Range	:Weighted:	Range	:Weighted:	PIEZIT	france :	Kingdom
				Per 1,000 lineal feet-	1 lineal	feet		:		Percent	
••		••	••	•				••		••	
1979:		••	••	••					••	••	
January-March:	**	***	***	***	***	. ***	**	***	* *	. ***	*
April-June:	**	***	***	***	**	***	**	***	***	***	***
July-September:	***	***	***	***	**	***	*	. *** .	*	***	**
October-December-:	***	***	***	***	*	. ***	**	. ***	***	***	***
••		••	••	••		••		••	. .	••	
1980:			••	••					••	••	
January-March:	***	: 175 :	***	***	***	. *** .	**	. *** .	* *	. ***	**
April-June:	**	: 174 :	**	**	**	***	**	***	***	***	***
July-September:	*	: 172 :	***	**	**	***	*	. ***	***	***	***
October-December-:	* *	: 173 :	***	***	**	***	**	. ***	* ***	***	**
•• (••	••		••		••		••	
1981:		••	••	••				••		••	
January-March:	*	: 174 :	**	**	*	***	*	. ***	*	·· ***	*
April-June:	***	: 178 :	***	***	***	***	**	. *** :	***	***	**
July-September:	***	: 181 :	***	***	***	***	**	***	*	· ***	**
October-December-:	***	: 182 :	***	***	**	***	**	. ***	***	. ***	**
••		••	••	••					, ,	••	e se
7 4 1		,	. 0/	10000				1.	1-1	10719 6	#1 COUL OF

1/ A shipment of 72,000 lineal feet of 1/2-inch, 270K, 7-wire strand (welded short-length strands), sold at \$160/1000 ft, was noted but not included by the importer. Bad this price been included in the calculation, the weighted average price and the margin of underselling would remain the same because of the small volume involved.

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



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

On the average, both imported and domestic prices increased or decreased no more than 5 to 6 percent during the period under consideration. Domestic strand prices averaged \$*** per 1,000 lineal feet in 1979, *** to an average of \$174 in 1980, and then increased to an average of \$179 in 1981. Brazilian strand * * in July-December 1979, * * * in 1980, and * * * in 1981. French strand, which was priced at * * * early in 1979, * * * in October-December 1979, * * * in 1980, and * * * in 1981. The average price of strand imported from the United Kingdom * * *, starting at * * * in April-June 1979, * * * of * * in October-December 1980, * * * in April-June 1981 at * * *, and * * * again to * * * per 1,000 lineal feet in October-December.

Comparisons of U.S.-produced and imported strand prices.--Comparisons of domestic prices f.o.b. mill with import prices f.a.s. (landed, duty paid) port or importers' warehouse do not reflect the respective competitive positions of domestic producers and importers. The bottom line for purchasers of strand is a comparison of delivered prices. In market areas where imported and domestic strand compete head on, especially coastal and adjacent areas, inland freight as a share of delivered price is considerably less for imported strand than for competing domestic strand. Domestic producers must frequently absorb significant freight cost in quoting delivered prices to compete with imported strand. These domestic producers' net realized prices frequently are significantly less than their quoted selling prices. 1/

Questionnaire data show that prestressed concrete steel wire strand imported from Brazil, France, and the United Kingdom generally undersold U.S.-produced strand during 1979-81. There are instances, however, in which the imported strand was more expensive than U.S.-produced strand. Margins of underselling ranged from a low of 1 percent (* * * strand, October-December 1980) to a high of 21 percent (* * *, strand, January-March 1979). Margins of overselling ranged from a low of 1 percent (* * *, 1980 and * * * strand, October-December 1981) to a high of 5 percent (* * * strand, April-June 1981).

<u>Brazil</u>.--Prestressed concrete steel wire strand imported from Brazil * * * U.S.-made strand throughout 1979-81. Margins * * * ranged from a high of * * percent in * * * to a low of * * percent in * * *, and * * * 1980, before * * * in July-December 1981.

France.--Data on the prices of prestressed concrete steel wire strand imported from France are based * * *. In 1980, French-produced strand * * * U.S.-produced strand by between * * * and * * * percent. In 1981, because domestic prices increased and French prices * * *.

^{1/} For example, one such instance, cited in conference testimony and corroborated by Commission staff inquiry, involved imported French strand sold from Houston to a Dallas area purchaser at about \$165 per 1,000 lineal feet, delivered. Absorbed freight would amount to about \$5.50 per 1,000 lineal feet (based on intrastate freight rates) for a net selling price of about \$160. A recent sale by * * * to the Dallas area at * * * per 1,000 lineal feet, involved freight absorption of about * * * per 1,000 lineal feet, or a net selling price of about * * *. Comparing the net prices would indicate no margin of underselling. In contrast, on a delivered-price basis, there is an underselling margin of * * *.

The United Kingdom.--Data received show that strand imported from the United Kingdom * * * U.S.-produced strand by * * * to * * percent in * * * and was * * percent * * * the price of the domestic product in April-June of that year. Price data were * * *. During January-March 1980, the price of strand produced in the United Kingdom was * * * percent * * * the domestic price, and in October-December 1980, such strand was * * * percent * * * U.S. producers' prices. Prices of strand produced in the United Kingdom were * * * percent * * * U.S. producers' prices in April-June 1981, * * * percent * * * U.S. producers' prices in July-September 1981, and * * * percent * * * U.S. producers' prices in October-December 1981.

Purchase prices.—The Commission staff interviewed purchasers of prestressed concrete steel wire strand in the field and contacted numerous purchasers named in the lost sales sections of domestic producers' questionnaires. These purchasers gave examples of quotes received and prices paid for strand. Comparisons of these delivered prices quoted by domestic producers and importers to the same purchaser provide a solid basis for calculating margins of underselling by imports. The following tabulation presents typical examples of competing quotes for domestic and imported strand made to purchasers located in various parts of the country.

Purchaser's location	:Date of : quota	: Domestic : quote		Import quote	:	Margin of underselling	Source
	:	:	:		:		•
*	*	*		*		*	*

Lost sales

Bid competition characterizes the market for prestressed concrete steel wire strand. Domestic producers and importers of strand quote prices—for specific construction projects which incorporate prestressed concrete. Prestressers and posttensioners, in turn, are competing for contract awards on such projects. As purchasers of strand, they generally request price quotes from various "approved" strand suppliers. The number of strand vendors quoting prices varies from three to as many as seven or eight. According to purchasers of strand, competition for construction project contracts is keen. Price, of necessity, is the key determinant in buying strand. 1/ Thus, given this price-sensitive, bid-oriented market, a lost sale occurs when a vendor quotes a price to supply strand but loses that opportunity for a sale because of a lower price quoted by a competing vendor who wins the contract. It is in this context that "lost sales" are analyzed.

Five domestic producers submitted 29 specific allegations stating that they lost sales of slightly over 18 million pounds of prestressed concrete steel wire strand to imports from one or more of the subject countries since January 1, 1979. Eleven allegations concerned imports of Brazilian strand, 12 allegations concerned French strand, and 6 concerned strand from the United Kingdom. The Commission staff investigated 26 of the 29 allegations, allega-

^{1/} Some purchasers emphasized that they had to turn to lower priced imports to be competitive on their own bids to general contractors.

tions which accounted for 96 percent of the total quantity of sales alleged to be lost sales.

Brazil.—Eleven sales totaling 7.4 million pounds were alleged to be lost to strand, from Brazil. Ten of these allegations, involving 7.3 million pounds of strand were investigated by the Commission staff. Lost sales were verified in nine instances that covered 98 percent of the alleged lost volume. Purchasers cited price as the overriding factor in their purchase decisions. In only one instance was the allegation denied, and in that case, * * *. The quality of Brazilian strand was rated as good, with one purchaser commenting on the ease of handling Brazilian strand in its wooden cradle. One purchaser noted that extended payment terms (60 days) offered for Brazilian strand constituted an extra incentive to it in making its decision to purchase strand.

One purchaser stated that he had experienced difficulty with * * *. However, this purchaser stated that he considered strand from the United Kingdom to be of top quality and had purchased * * * packs from * * * in * * * per 1,000 lineal feet compared with competing domestic prices of * * *, delivered. Another purchaser confirmed a sale allegedly lost to strand from Brazil, * * *. Another purchaser verified that it had purchased Brazilian strand because of its price, but noted that not only was the price of the alleging firm (* * *) sharply higher, but there also existed a question as to * * * ability to make timely delivery.

France.—The Commission staff investigated all 12 of the allegations of sales lost to strand imported from France, which accounted for about 9 million pounds of strand. The allegations were verified in 10 instances for a total lost-sales volume during 1980 and 1981 of almost 5 million pounds. Lower price was the principal reason cited by purchasers for their decisions to buy the imported strand. In addition, one purchaser noted that extended payment terms (60 days) formed an extra incentive to purchase the French product. Several purchasers also mentioned the need to maintain an alternative source of supply as a factor in making purchase decisions. In two instances, the sales allegedly lost to French strand wire were denied by the purchasers involved. In one of these instances, * * *.

* * *, a large purchaser of French strand, emphasizes that there is strong bid competition for their contracts, so the firm "goes with the lowest price." * * * and * * * are number one and number two, respectively, in terms of low price, and then follow the other U.S. firms at higher price levels. In March 1982, * * * bought * * * packs of * * * strand from * * *. * * *, the bid spectrum was as shown in the following tabulation: 1/

		<u>Firm</u>	Bid
*	*	*	***
ĸ	*	*	***
		*	
*	*	*	***
		*	
*	*	*	***
*	*	*	***

This example of low-priced competition between importers and domestic producers was cited in conference testimony. 1/

Another purchaser of French strand, * * *, keeps six or eight vendors' current price lists on hand. When in need of strand, it contacts several vendors to confirm or update a quote, and then buys from the lowest "approved" source. At the same time, the firm keeps the door open for alternate sources.

The United Kingdom. -- There were six sales allegedly lost, totaling 1.2 million pounds of strand, to strand imported from the United Kingdom. Five lost sales, involving 0.5 million pounds, were investigated by the Commission staff. Three purchasers cited price as the key factor in their decisions. Two purchasers which bought a total of * * * pounds of lower priced United Kingdom strand instead of domestic strand stated that * * *, the competing domestic bidder, couldn't meet the purchaser's delivery time requirement.

One purchaser, the * * *, of * * *, commented that at times in 1981,
* * * couldn't meet delivery time requirements. This same prestresser had a
recent delivered price quote of * * * per 1,000 lineal feet on low-relax,
1/2-inch, 270K, 7-wire strand from * * *. 2/ The competing quote from * * *
was * * *, delivered. Currently, the firm is purchasing strand from * * *
and from * * *. 3/ This purchaser also stated that the price of * * * strand
is too high for the * * * area. Another purchaser, * * *, of * * *, also
mentioned the inability of * * * to meet its delivery needs during part of
1981. According to * * *, it has recently received price quotations of * * *
for United Kingdom strand, * * * for strand from * * *, and * * * for strand
from * * *.

The Question of Alleged Threat of Material Injury

Data on inventories of prestressed concrete steel wire strand imported from France and the United Kingdom are presented in tables 22 and 23. Hebard, the importer of the product from Brazil, holds only minor quantities of the strand in inventory.

Table	22Year	rend	invento	ries	of j	prestressed	concrete	steel	wire	strand
	imported	from	n France	held	by	Chiers-Char	tillon-Go	ccy, 1	978-81	-

Year	Inventory :	Inventory as a share of shipments
:	1,000 pounds :	Percent
1978:	***	***
1979:	***	***
1980:	***	***
1981:	*** :	***
:	:	

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

^{1/} Transcript of the conference, p. 128.

 $[\]overline{2}$ / These prices were quoted * * *.

 $[\]overline{3}$ / This purchaser noted that two years ago, he returned * * * of strand A-41 purchased from * * *.

Table 23.--Yearend inventories of prestressed concrete steel wire strand imported from the United Kingdom held by Springfield Industries, 1978-81

Year	:	Inventory		: Inventory as a share : of shipments
	:	1,000 pounds		: Percent
	:			:
1978	:		***	<u>1</u> / *:
1979	:		***	*
1980	:	**	***	: **
1981	:	•	***	: *
				:
1/ * * *.				

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

Data concerning production, capacity, and exports of the prestressed steel wire strand for Brazil, France, and the United Kingdom are presented in the section of this report concerning foreign producers.

医大腿 化对邻苯基基 連 粉 化多油水油

APPENDIX A

THE COMMISSION'S FEDERAL REGISTER NOTICE

[Investigations Nos. 701-TA-152 and 153 (Preliminary) and Investigation No. 731-TA-89 (Preliminary)]

Prestressed Concrete Steel Wire Strand From Brazil, France, and the United Kingdom

AGENCY: International Trade Commission

ACTION: Institution of preliminary countervailing duty investigations and an antidumping investigation and scheduling of a conference to be held in connection with the investigations.

SUMMARY: The International Trade Commission hereby gives notice of the institution of investigations Nos. 701-TA-152 and 153 (Preliminary) under section 703(a) of the Tariff Act of 1930 (19 U.S.C. 1671b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Brazil and France of wire strand of steel for prestressing concrete, provided for in item 642.11 of the Tariff Schedules of the United States (TSUS) (1982), upon which bounties or grants are alleged to be paid.

The Commission also gives notice of the institution of investigation No. 731-TA-89 (Preliminary) under section 733(a) of the Tariff Act (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with materially injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from the United Kingdom of wire strand of steel for prestressing concrete, provided for in item 642.11 of the TSUS, which are alleged to be sold in the United States at less than fair value.

EFFECTIVE DATE: March 4, 1982.

FOR FURTHER INFORMATION CONTACT: Ms. Abigail Eltzroth, Office of Investigations, International Trade Commission; telephone 202–523–0289.

SUPPLEMENTARY INFORMATION:

Background

These investigations are being instituted following receipt of petitions filed by counsel for American Spring Wire Corp., Armco Inc., Bethlehem Steel Corp., Florida Wire & Cable Co., Pan American Ropes, Inc., and Shinko Wire America, Inc. The Commission must make its determinations in these investigations within 45 days after the date of the filing of the petitions, or by

April 19, 1982 (19 CFR 207.17). These investigations will be subject to the provisions of Part 207 of the Commission's Rules of Practice and Procedure (19 CFR Part 207, 44 FR 76457 and 47 FR 6190), and particularly subpart B thereof.

Written submissions.—Any person may submit to the Commission on or before March 29, 1982, a written statement of information pertinent to the subject matter of these investigations. A signed original and fourteen copies of such statements must be submitted.

Any business information which a submitter desires the Commission to treat as confidential shall be submitted separately, and each sheet must be clearly marked at the top "Confidential Business Data." Confidential submissions must conform with the requirements of § 201.6 of the Commission's Rules of Practice and Procedure (19 CFR 201.6). All written submissions, except for confidential business data, will be available for public inspection.

Conference.—The Director of Operations of the Commission has scheduled a conference in connection with these investigations for 9:30 a.m., on March 25, 1982 at the U.S. International Trade Commission Building, 701 E Street, NW., Washington, D.C. Parties wishing to participate in the conference should contact the investigator for the investigation, Ms. Abigail Eltzroth, telephone 202-523-0289, not later than March 18, 1982, to arrange for their appearance. Parties in support of the imposition of antidumping or countervailing duties in these investigations and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference.

For further information concerning the conduct of these investigations and rules of general application, consult the Commission's rules of Practice and Procedure, part 207, subparts A and B (19 CFR 207), and part 201, subparts A through E (19 CFR 201). Further information concerning the conduct of the conference will be provided by Ms. Eltzroth.

This notice is published pursuant to § 207.12 of the Commission's Rules of Practice and Procedure (19 CFR 207.12).

By order of the Commission. Issued: March 9, 1982.

Kenneth R. Mason,

Secretary.

[FR Doc. 82–7082 Filed 3–15–82; 8:45 am]
BILLING CODE 7020–02–M

A-44

APPENDIX B

WITNESSES AT THE COMMISSION'S CONFERENCE

CALENDAR OF PUBLIC CONFERENCE Investigations Nos. 701-TA-152 and 153 (Preliminary) and Investigation No. 731-TA-89 (Preliminary)

PRESTRESSED CONCRETE STEEL WIFE STRAND FROM BRAZIL, FRANCE, AND THE UNITED KINGDOM

Those listed below appeared as witnesses at the United States International Trade Commission conference held in connection with the subject investigations on Thursday, March 25, 1982, in the Hearing Room of the USITC Building, 701 E Street, NW., Washington, D.C.

In support of the petitions

Law Offices of Eugene L. Stewart Washington, D.C. on behalf of

American Spring Wire Corp. Armco Inc. Bethlehem Steel Corp. Florida Wire & Cable Co. Pan American Ropes, Inc. Shinko Wire America, Inc.

Gary Sparks, Sales Manager American Spring Wire Corp.

Frederick F. Hunt, Vice President Sales Florida Wire & Cable Co.

Kenneth O. Wilson, Vice President Operations Shinko Wire America, Inc.

Eugene L. Stewart)--OF COUNSEL Kathleen T. Weaver)

In opposition to the petition

Fox Glynn & Melamed New York, New York on behalf of

Chiers-Chatillon-Gorcy

Eric Giblain, Export Sales Manager

John G. Reilly, Vice President ICF Inc.

Garry P. McCormack) -- OF COUNSEL Raymond F. Steckel)

Reboul, MacMurray, Hewitt, Maynard & Kristol New York, New York on behalf of

Companhia Siderurgica Belgo-Mineira

Peter Schumann, Vice President Sales R.W. Hebard & Associates, Inc.

Charles E. Dorkey III --OF COUNSEL J. David Grizzle

Bus by, Rehm & Leonard Washington, D.C. on behalf of

Springfield Industries Corp.

Javier Salinas, President Christopher R. Parkinson, Vice President Marketing

Mr. Will E. Leonard--OF COUNSEL

A-48

 $H = \{ x \in \mathcal{X} \mid x \in \mathcal{X} \mid x \in \mathcal{X} \mid x \in \mathcal{X} \}$ $= \{ x \in \mathcal{X} \mid x \in \mathcal{X} \mid x \in \mathcal{X} \mid x \in \mathcal{X} \mid x \in \mathcal{X} \}$