

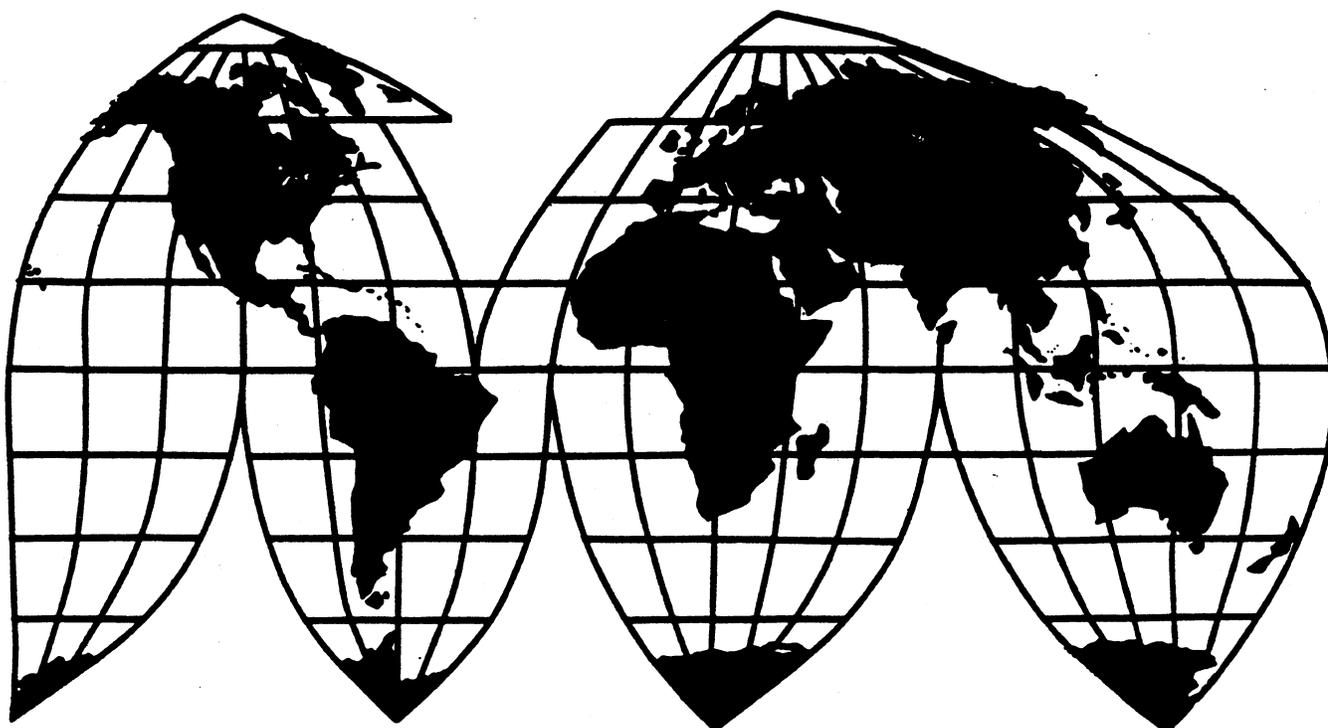
Certain Special Quality Carbon and Alloy Hot-Rolled Steel Bars and Rods and Semifinished Products from Brazil

Investigation No. 731-TA-572

Publication 2662

July 1993

U.S. International Trade Commission



Washington, DC 20436

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Note.-- Information that would reveal business proprietary operations of individual concerns may not be published and therefore has been deleted from this report.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

DETERMINATION AND VIEWS OF THE COMMISSION

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-572 (Final)

CERTAIN SPECIAL QUALITY CARBON AND ALLOY HOT-ROLLED STEEL BARS
AND SEMIFINISHED PRODUCTS FROM BRAZILDetermination

On the basis of the record¹ developed in the subject investigation, the Commission unanimously determines, pursuant to section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the Act), that an industry in the United States is not materially injured or threatened with material injury, and the establishment of an industry in the United States is not materially retarded, by reason of imports from Brazil of certain special quality carbon and alloy hot-rolled steel bars and semifinished products, provided for in subheadings 7207.11.00, 7207.12.00, 7207.19.00, 7207.20.00, 7214.30.00, 7214.40.00, 7214.50.00, 7214.60.00, 7224.10.00, 7224.90.00, and 7228.30.80 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce to be sold in the United States at less than fair value (LTFV).

Background

The Commission instituted this investigation effective January 11, 1993, following a preliminary determination by the Department of Commerce that imports of certain special quality carbon and alloy hot-rolled steel bars and semifinished products from Brazil were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. § 1673b(b)). Notice of the institution of the Commission's investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice in the

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

Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of February 3, 1993 (58 F.R. 6976). The hearing was held in Washington, DC, on June 2, 1993, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF THE COMMISSION

Based on the information obtained in this final investigation, we determine that four industries in the United States, consisting of the domestic producers of (1) free-machining semifinished steel, (2) other special quality carbon and alloy semifinished steel, (3) free-machining hot-rolled bars and cut-length rods, and (4) other special quality carbon and alloy hot-rolled bars and cut-length rods, are neither materially injured nor threatened with material injury by reason of less than fair value (LTFV) imports from Brazil of special quality carbon and alloy semifinished steel and hot-rolled carbon and alloy bars and cut-length rods.¹

I. LIKE PRODUCT

A. Statutory Criteria

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of the subject imports, we must first define the "like product" and the "industry." Section 771(4)(A) of the Tariff Act of 1930 (the "Act") defines the relevant domestic industry as "the domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product" ² In turn, 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 subject to an investigation" ³

¹ Material retardation of a domestic industry by reason of the subject imports is not an issue in this investigation, and therefore will not be discussed further.

² 19 U.S.C. § 1677(4)(A).

³ 19 U.S.C. § 1677(10).

Our determination of the appropriate like product or products in an investigation is a factual determination, to which we apply the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.⁴ Generally, we disregard minor variations and look for clear dividing lines between possible like products.⁵

B. Background and Product Descriptions

The Department of Commerce (Commerce) determined on August 12, 1992, that the subject merchandise of this investigation constitutes two distinct classes or kinds: alloy and carbon hot-rolled bars and rods of special bar quality engineered steel, and semifinished products of special bar quality engineered steel. It defined these classes or kinds of merchandise subject to investigation as follows:

The term "hot-finished alloy and carbon bars and rods of special bar quality engineered steel" covers certain hot-finished carbon and alloy (other than stainless, high speed, silico-manganese, and tool steel) steel bars and rods, other than forged, which have a uniform solid cross-section along their whole length and are in the shape of circles, segments of circles, ovals, rectangles, triangles, or other convex polygons, and do not conform to the definitions for semifinished steel, flat-rolled products, hot-rolled bars and rods in irregularly wound coils, reinforcing bars and rods, and wire. The subject bars and rods are of special bar quality engineered steel that are described in Society of Automotive Engineers (SAE) J403, J404, J411, J1081, J1249, J1268, and modifications thereof. . . .

⁴ In defining the like product, we generally consider a number of factors including: (1) physical characteristics and uses; (2) interchangeability of the products; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) the use of common manufacturing facilities and production employees; and, where appropriate, (6) price. No single factor is dispositive, and we may consider other factors relevant to our like product determination in a particular investigation. See, e.g., Asociacion Colombiana de Exportadores de Flores v. United States, 693 F. Supp. 1165, 1169, n.5 (CIT 1988).

⁵ S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979).

The term "semifinished products of special bar quality engineered steel" covers certain alloy ingots (other than stainless steel, high-speed steel, silico-manganese steel, tool steel, and high-nickel alloy steel), and semifinished products of carbon and alloy (other than stainless steel, high-speed steel, silico-manganese steel, tool steel, and high-nickel alloy steel) steel, of circular or rectangular (including square) cross-section with a width measuring less than four times the thickness, which are continuous cast or have been subjected to no more than primary hot rolling, which possess a rough surface and do not meet the dimensional tolerances for bar products, of special bar quality engineered steel that are described in Society of Automotive Engineers (SAE) specifications J403, J404, J1081, J1249, J1268, and modifications thereof. . . .⁶

The products covered by this investigation are all "special quality"⁷ steels that fall into two categories: "semifinished" ingots, blooms and billets; and finished "hot-rolled" bars and rods. The term "semifinished" in this investigation includes products resulting from both conventional ingot

⁶ These classes or kinds **exclude** the following categories of special quality steels: (1) semifinished carbon ingots; (2) alloy silico-manganese steels; (3) lead, bismuth, tellurium, or selenium hot-rolled carbon and alloy bar and rods (lead and bismuth steels); (4) coiled carbon and alloy hot-rolled bars and rods; and (5) forged carbon and alloy bars.

⁷ The term "special quality bars and rods" includes the following:

Special quality bar and rod is used where the steel is required to be hot-forged, heat-treated, cold-drawn, machined, or used in particular structural applications or in high product liability applications. . . . Special quality bar and rod is produced to be as free from visible surface defects and excessive chemical segregation as is possible given the particular metallurgy. Special quality carbon steel bar and rod generally is subjected to rigorous product analysis and chemical uniformity which are not typical of merchant quality hot-rolled carbon steel bars and rods. . . . Special quality hot-rolled carbon steel bar and rod is used in the specialized manufacturing operations for critical components in high performance machinery.

Certain Special Quality Hot-Rolled and Semifinished Carbon and Alloy Steel Products from Brazil, Inv. No. 731-TA-572 (Preliminary), USITC Pub. 2537 (July 1992)("Preliminary determination").

teeming⁸ and continuous casting.⁹ These semifinished products generally are of much greater diameter than finished hot-rolled bars or rods;¹⁰ they have not been further worked other than undergoing initial hot-rolling; and they typically are characterized by a rough surface and do not meet the dimensional tolerances for bar products.

The second major category of special quality steels subject to this investigation are certain imports of finished "hot-rolled" bars and rods. These products are manufactured by heating (usually to above 2,200 degrees F) and reducing a semifinished billet to a final thickness and shape by passing it through a series of rolls.¹¹ Hot-rolled "bars" are hot-rolled products both in cut-lengths and irregularly wound coils.¹² Bars may be round, rectangular, and hexagonal, and consist of various diameters from 1/2 to 12 inches, with the upper limit for coiled bars being 2 inches.¹³ The subject imports include cut-length hot-rolled bars, but not coiled hot-rolled bars.

⁸ For a discussion of "ingot teeming" and "continuous casting," see the Staff Report to the Commission (July 16, 1992) in this investigation ("Report") at I-16.

⁹ An "ingot" is the largest semifinished form. It is produced by pouring liquid steel into a large round shaped mould. When the steel has cooled, the mould is removed and the ingot is then reheated and hot-rolled into a bloom. There are no widely accepted precise definitions for a "bloom" or "billet"; the principal distinction is one of size -- blooms are larger than billets in cross-sectional area and commonly include products greater than 7 inches in diameter. Billets normally include circular, square or rounded corner square products typically greater than 4 inches in diameter. Report I-16 n.37. Semifinished "slabs" used to make flat-rolled products are not included within this investigation.

¹⁰ We note however that certain bars included in these investigations are also of a substantial diameter.

¹¹ Id. I-18.

¹² Id. I-14.

¹³ Id. I-13 - I-14.

Hot-rolled "rods" are almost always coiled, hot-rolled products of a solid, approximately round cross section, not under 0.20 inches nor over 0.74 inches in diameter.¹⁴ The subject imports include cut-length rods, but not coiled rods.

C. Like Product Analysis

In our preliminary determination, five out of six Commissioners found two like products consisting of special quality semifinished (billets, blooms, and ingots) and special quality bars (including coiled and cut-length bars and cut-length rods). Commissioner Rohr found four like products consisting of free-machining semifinished steel, other special quality semifinished steel, free-machining bars, and other special quality bars.¹⁵ We noted, however, that in any final investigation we would examine in detail alternative like products, including a like product of hot-rolled free-machining bars and rods (free-machining steels).¹⁶ Recently, we addressed many of the like product issues involved with special quality and free-machining bars in the Lead and Bismuth investigations.¹⁷ We found that there were major differences between free-machining bars and rods and other types of special quality bars and rods and held that the domestic product like the subject imports of lead and bismuth bars and rods was free-machining bars and rods.

¹⁴ Id. Small amounts of cut-length rod are produced by the domestic industry. As used herein, neither hot-rolled carbon steel bars nor hot-rolled carbon steel rods include reinforcing bars or rods, which is part of "merchant" quality steel hot-rolled carbon bars and rods. Id.

¹⁵ Preliminary determination at 31-44.

¹⁶ Id. at 21 n.76.

¹⁷ Certain Hot-Rolled Lead and Bismuth Products from Brazil, France, Germany, and the United Kingdom, Inv. Nos. 701-TA-314 through 317, Inv. Nos. 731-TA-552 through 555 (Final), USITC Pub. 2512 (June 1992) at 22.

For purposes of this investigation, we find there are four like products: free-machining semifinished steel products; other special quality semifinished carbon and alloy steel products; free-machining hot-rolled bars and cut-length rods; and other special quality carbon and alloy hot-rolled bars and cut-length rods.¹⁸ In making this determination we note three principal like product issues: (1) whether free-machining steels are a separate like product from other special quality steels; (2) whether there should be separate like products for semifinished and finished special quality steels (for both free machining and other special quality steels); and (3) whether the like product should be limited to only those special quality steel products produced by the limited group of domestic producers referred to in this investigation by petitioners as the "Class 1 domestic producers" of special quality products.

1. Free-machining steel products are a separate like product from other special quality steel products

As acknowledged by many of the parties in this final investigation, the logical result of our determinations in the Lead and Bismuth investigations is a finding of separate like products for free-machining special quality

¹⁸ Many possible like product issues were not contested by the parties in this final investigation. None of the parties assert the like product should include "merchant" quality carbon steel bars and rods. No party argues that the like product should not include both alloy and carbon special quality semifinished and hot-rolled steel products. No party contests the Commission's preliminary determination excluding forged bars from any like product. None of the parties have argued that the Commission incorrectly excluded coiled rods from the like product of special quality bars. No party contends that silico-manganese and high-nickel alloy steels should not continue to be included within both the semifinished and hot-rolled special quality bar like product categories. Finally, the parties do not contest the inclusion of carbon ingots within the semifinished like product.

products.¹⁹ This conclusion is based on our finding in Lead and Bismuth that there are major differences between free-machining hot-rolled bars and other special quality hot-rolled bars.²⁰ The scope of the subject imports in the instant investigation excludes one category of free-machining steels, hot-rolled lead and bismuth steels. However, it includes the other major categories of free-machining steels, non-leaded resulphurized grades 1100 and non-leaded resulphurized and rephosphorized grades 1200, and any alloy free-machining steels.²¹ As set forth in the Lead and Bismuth determination, there are major differences between non-leaded free-machining steels and other special quality steels that compel a finding of separate like products even if lead and bismuth steels are not included in the scope of the products subject to investigation. The reasoning of Lead and Bismuth indicates that a separate like product for free-machining steels is appropriate in this investigation. No information or argument in this investigation alters that reasoning. Such a like product includes all free-machining hot-rolled steels, including domestic free-machining lead and bismuth steels.

¹⁹ None of the parties in this final investigation has raised any opposition to the creation of a separate like product for free-machining steels as contemplated by the Commission's determination in the Lead and Bismuth investigations.

²⁰ Lead and Bismuth, USITC Pub. 2611, at 11-28.

²¹ For a discussion of free-machining steels and grades 1100 and 1200, see the Report at I-7 - I-8.

2. Semifinished steels of both free machining products and other special quality products are separate like products from finished steel products in both these categories

We reaffirm our preliminary determination that there are separate like products of semifinished steels and hot-rolled bars and cut-length rods.²² The facts we relied on in the preliminary determination generally continue to be valid in this final investigation; i.e., there are relatively significant processing costs of transforming a special quality semifinished product into a hot-rolled bar or rod;²³ many essential characteristics of the special quality semifinished steel are distinct from those of hot-rolled special quality bars;²⁴ there is a significant independent market for special quality

²² In analyzing whether a semifinished product should be included in the same like product with the finished products under investigation, the Commission typically examines five factors, including: 1) the necessity for, and costs of, further processing; 2) the degree of interchangeability of articles at different stages of production; 3) whether the article at an earlier stage of production is dedicated to use in the finished article; 4) whether there are significant independent uses or markets for the finished and unfinished articles; and 5) whether the article at an earlier stage of production embodies or imparts to the finished article an essential characteristic or function. See, e.g., Stainless Steel Flanges from India and Taiwan, Inv. No. 731-TA-639-640 (Preliminary), USITC Pub. 2600 (February 1993) at 9.

²³ The Vice-President of sales of domestic producer Copperweld Steel Company, Arthur R. Latanzi, pointed out the necessity for further processing for semifinished product in order to create bars:

[B]illets sold for rolling have a rough finish only and are not produced to the same size and straightness tolerances. Moreover, they are not sold for end-use applications, but instead are an intermediate product, intended to be reheated and rerolled into smaller cross-section products.

Petitioners' Prehearing Br., exhibit P-1 at 2, ¶ 6.

²⁴ Petitioners' counsel stated:

[T]rue semifinished [is] a product with a rough surface and lacking dimensional tolerances which is sold to other steel mills for rerolling, as contrasted with the finished, smooth-surfaced, dimensional-tolerant products which are sold directly in large cross-sections to the forging, cold-forming, and other machining industries.

Hearing Tr. 53.

semifinished steel products;²⁵ and a significant quantity of semifinished special quality steel is used in the manufacture of products that are not included or specifically excluded from the scope of this investigation.²⁶ We note that there has been a reduction in size of the independent market (i.e. non-captive) for special quality semifinished since the preliminary determination from fifteen percent of domestic production to six percent.²⁷ Although reduced to six percent, we note that such a market represents a very large amount of absolute tonnage of a significant value.^{28 29}

Evidence developed in the final investigation provides further support for our preliminary conclusion that we are reaffirming here.³⁰ This evidence

²⁵ Petitioners' incorrectly assert that "at no point in the production process of special quality products are products taken out of the production process and inventoried as semifinished products." The fact that six percent of semifinished production, constituting a large volume of total tonnage, is sold in the U.S. merchant market and was reported as such by three domestic producers suggests such an inventory process.

²⁶ Preliminary determination at 12-14.

²⁷ Report I-53. This difference was primarily a result of the fact that many producers of semifinished billets for rod indicated in questionnaire and supplemental questionnaire responses in the final investigation that they did not produce special quality semifinished steels. Report I-12. In addition, certain U.S. producers reported production of semifinished steels for internal consumption which were omitted from their responses to the Commission's preliminary questionnaires. Id. I-32 n.77.

²⁸ Report I-47, table 8.

²⁹ Commissioner Brunsdale and Commissioner Crawford do not believe that the absolute dollar amount of the independent market is relevant to the like product determination. They believe that the significance of the independent market must be judged relative to the industry as a whole. Otherwise, the Commission's like product standards will be different for large and small industries.

³⁰ Petitioners correctly note that the terminology employed by various domestic producers to describe special quality semifinished products has been less than exact. Petitioners' Prehearing Br. at 28. However, in this final investigation both Commerce and the Commission adopted petitioners' narrower
(continued...)

established that industry standard tolerances for hot-rolled bars are considerably more exacting than those for special quality semifinished products.³¹ We also note that a substantial majority of Brazilian imports of semifinished billets subject to investigation were purchased by Raritan for use in making wire rods.³² There is significant value added to the semifinished product in producing finished wire rods, including costs for reheating, rolling and coiling the billets.³³

Finally, we note that while the Lead and Bismuth investigations did not involve semifinished products (only bars and rods), the analysis of publicly available facts and the reasoning of Lead and Bismuth also support a finding of separate like products for free-machining semifinished steel products and other special quality semifinished steel. No information or argument in this special quality investigation alters that reasoning. In addition, the record

³⁰(...continued)

definition of special quality semifinished products, i.e., "a product with a rough surface and lacking dimensional tolerances which is sold to other steel mills for rerolling." Hearing Tr. at 53. Thus, the Commission in the final investigation treated forging billets sold to domestic forgers in excess of 4 inches in diameter with bar tolerances and surface finish as "bars." In those limited instances where bars were mischaracterized as special quality semifinished product, Commission staff corrected producer questionnaire responses which mislabeled bars as semifinished products. Report I-12.

³¹ An affidavit from respondent Co-Steel Raritan's (a large domestic producer of other special quality semifinished products and rods) metallurgist, which was not contradicted by petitioners, states that the semifinished billets supplied by Acominas could not be classified as bar according to ASTM Standard Specifications ASTM-A-29 ("Steel Bars, Carbon and Alloy, Hot-rolled and Cold-Finished"). Applying these standards, the semifinished Acominas billets supplied to Raritan are consistently out of square, often are not within length requirements for bars, are too irregularly shaped to meet bar cross-section tolerances, and do not meet bar straightness requirements. Raritan Prehearing Br. exhibit 1, Randall Affidavit ¶ 8 at 3.

³² Raritan Preconference Br. at 3-7, 10.

³³ Id. at 11.

in this investigation indicates substantial differences between free-machining semifinished steel and other special quality semifinished steel in terms of physical characteristics (distinct metallurgy and mechanical properties); end use (for further re-rolling into free-machining bars for machining); lack of interchangeability with other special quality semifinished steel given a particular metallurgy; customer perceptions of separate and distinct products; and production processes.³⁴ None of the parties has argued in this investigation that free-machining semifinished and other special quality semifinished steels should not be different like products.

3. The like products are not limited to those special quality products made by so-called Class 1 domestic producers

The final like product issue that arose during the Commission's investigation was based on petitioners' new argument that the like product (and the domestic industry) should be limited to only a group of domestic producers referred to by petitioners as "Class 1 producers."³⁵ Class 1 producers were defined by petitioners as those producers (primarily non-minimills) who produce higher quality special quality steels in sizes larger than 3.13 inches in diameter that consistently meet exacting standards.³⁶ According to petitioners, the special quality products of so-called Class 2 and Class 3 minimills "differ in size, quality, price, processing and manufacturing from special quality products subject to investigation and also produced by Class 1 producers."³⁷

³⁴ See also Report I-7 - I-8; D-3 - D-4.

³⁵ Petitioners' Prehearing Br. at 32-41.

³⁶ Id.

³⁷ Id. at 41.

Counsel for petitioners admitted that petitioners' so-called "classes" are not referenced in Commerce's scope, not mentioned in the petition, not part of any published industry standards, not the basis for any marketing of special quality products even by so-called Class 1 producers, and are not a term of art.³⁸ Petitioners admitted that so-called Class 2 and Class 3 producers manufacture special quality bars and that there is an "overlap of competition" between the three classes.³⁹ Moreover, the record indicates that at least one so-called Class 1 producer purchased special quality bars from so-called Class 2 and Class 3 producers.⁴⁰

The Commission finds that it would be improper to define the like product in the manner suggested by petitioners. Commerce's scope encompasses all special quality bar and cut-length rod products in sizes both above and below the size limits asserted to characterize the products of so-called Class 1 producers.⁴¹ It is undisputed that special quality bars in a similar wide range of sizes are produced by a number of domestic special quality producers, including so-called Class 2 and Class 3 producers.⁴² By seeking to eliminate special quality products below 3.13 inches from the like product, petitioners' argument would have the Commission find a like product that did not encompass all of the domestically produced products "like" those subject to

³⁸ Hearing Tr. 90-93. None of the industry specialists who testified at the hearing nor those who provided evidence by way of affidavits in the briefs, indicated that the so-called "classes" of special quality producers are referred to as such or otherwise used in any way in the special quality industry.

³⁹ Hearing Tr. 86, 94.

⁴⁰ Questionnaire response.

⁴¹ Villares Posthearing Br. at 3-7, exhibit 1.

⁴² Id.

investigation, i.e., omitting special quality bars below 3.13 inches in diameter. Petitioners cite no authority, and none is evident, for us to omit a domestic product "like" the articles within the scope.⁴³

D. Like Product Summary⁴⁴

Based on the foregoing and the Commission's determination in the preliminary investigation referenced herein, we find four like products: (1) free-machining semifinished steels (including lead and bismuth); (2) other special quality carbon and alloy semifinished steels; (3) free-machining (including lead and bismuth) hot-rolled bars and cut-length rods; and (4) other special quality carbon and alloy hot-rolled bars and cut-length rods.⁴⁵

⁴³ Petitioners' arguments regarding the alleged inability of so-called Class 2 and 3 producers to qualify with large purchasers is contradicted by the record. Hearing Tr. 160, 166-68, 172-73; Villares Posthearing Br. at 4-5, exhibits 3-4; purchaser questionnaires; Raritan Posthearing Br., exhibit 7 at 5 ¶ n. Nor is there any meaningful distinction between the manufacturing processes of the different classes as six of the so-called Class 2 producers have either ladle refining and/or vacuum degassing, and six have either ingot casting capability and/or large bloom continuous casting capability. Petitioners' Posthearing Br. at 24, table 4; Petitioners Prehearing Br. at 32. Contrary to petitioners' claims, the record suggests that many so-called Class 2 producers have careful scrap management programs, have high reduction ratios for higher quality, billet and bloom cast, have extensive billet and bloom testing, finishing and inspection capability, and produce a wide variety of alloy and carbon steels to industry approved specifications. Compare Petitioners' Prehearing Br. exhibit P-5 with Raritan's Posthearing Br., exhibit 7 at 4; see also Hearing Tr. at 193.

⁴⁴ Petitioners argue that coiled hot-rolled special quality bars should be excluded from the like product. As in the preliminary investigations, petitioners provide no evidence to support such an exclusion. See Preliminary determination at 16 n. 52. In this final investigation, we adopt our reasoning to include coiled bars and cut-length bars as set forth in the preliminary determination at 16-17 in this final investigation. No new evidence has been developed by any party which alters the Commission's preliminary determinations on this issue.

⁴⁵ The like products numbered 2 and 4 above include high nickel alloy steels and silicon manganese steels. Like products 1 and 2 include semifinished steels consisting of billets, blooms and ingots that possess a rough surface and do not meet the dimensional tolerances for special quality bar products.

(continued...)

II. DOMESTIC INDUSTRIES AND RELATED PARTIES

Section 771(4)(A) of the Tariff Act of 1930 defines domestic industry as:

. . . the domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product.⁴⁶

In defining the domestic industry, the Commission may exclude those domestic producers from the domestic industry who are "related parties." The statute defines related parties as producers who are "related to the exporters or importers, or are themselves importers of the allegedly . . . dumped merchandise."⁴⁷ In this investigation, Raritan is a substantial domestic producer of semifinished other special quality steels who also purchased subject imports of semifinished steels from an importer of record. Raritan's large purchases of semifinished imports from Brazil throughout the period of investigation constituted the dominant share of the importer's imports. Accordingly, it appears that the relationship between Raritan and the importer of record is so close that Raritan is "related to . . . importers, or are themselves importers" for the purposes of the related party provision.⁴⁸

⁴⁵(...continued)

Not included within the four like products are merchant quality semifinished and hot-rolled bars and rods, special quality coiled rods, special quality large forged bars, stainless steels, and tool steels.

⁴⁶19 U.S.C. § 1677(4)(A).

⁴⁷ The Commission applies a two part test, first determining whether the domestic producer meets the legal definition of a "related party" as set forth in the statute. If the producer does meet the definition the Commission must then determine whether "appropriate circumstances" exist to exclude the producer from the domestic industry.

⁴⁸ The leading Commission decision on this issue involving closely analogous facts is Certain Carbon Steel Butt-Weld Pipe Fittings from China and Thailand, (continued...)

Having found that Raritan is a "related party," we next examine whether "appropriate circumstances" exist for us to exclude it from the domestic industry producing other special quality semifinished steels.⁴⁹ Raritan produces the considerable majority of the semifinished other special quality steels it consumes to make wire rod in its own electric furnaces and rolling mills. Raritan's 1992 purchases of special quality semifinished steel produced by Acominas were only a relatively small percentage of Raritan's domestic special quality semifinished production.⁵⁰ Furthermore, the

⁴⁸(...continued)

731-TA-520 and 521 (Final), USITC Pub. 2528 (June 1992) at 9-13 (holding as a "related party" a domestic producer who was the principal domestic purchaser of subject imports and who controlled the purchases of three importers who were the importers of record for the subject imports, even though it had no formal corporate affiliation with importers).

⁴⁹ We traditionally have examined at least three factors in deciding whether a related party is being "shielded" from the effects of subject imports and determining that appropriate circumstances exist to exclude that party. Those factors include:

- (1) the percentage of domestic production attributable to the importing producer;
- (2) the reasons the U.S. producer has decided to import the product subject to investigation, i.e., whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market, and
- (3) the position of the related producers vis-a-vis the rest of the industry, i.e., whether inclusion or exclusion of the related party will skew the data for the rest of the industry.

In addition, we have considered other factors, such as the ratio of import shipments to U.S. production for each producer and the length of time that the producer has been engaged in domestic production. See Torrington Co. v. United States, 790 F. Supp. 1161 (CIT 1992)(affirming Commission's application of the related party provision).

⁵⁰ Commissioner Rohr notes that the Commission obtained and could include in its database the domestic production related activities of Raritan in the semifinished other special quality products category that do not reflect in
(continued...)

principal reason for Raritan's purchases of the semifinished steel was because it could neither produce nor obtain domestically a distinct type of special quality semifinished billets that would be an adequate substitute for the Brazilian steel it was purchasing.^{51 52} Accordingly, we find that there are not appropriate circumstances to exclude Raritan from the definition of the domestic industry producing other special quality semifinished steel products.

III. CONDITION OF THE DOMESTIC INDUSTRIES

A. Legal Standard and Conditions of Competition

In determining whether the domestic industries are materially injured by reason of the LTFV imports, the statute directs that we consider "all relevant economic factors which have a bearing on the state of the industry in the United States."⁵³ These include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital and research and development.^{54 55} No single factor is determinative, and we consider all

⁵⁰(...continued)

any way its import operations. He notes that Raritan was unable to provide any financial data for its semifinished products operations and so such information is not included in its database and the question of whether that might have reflected or not reflected the imports is moot. It is this factor, which directly reflects the degree to which data might or might not be skewed, on which he has principally relied in this investigation.

⁵¹ See discussion of this issue in §IV(B) infra.

⁵² Chairman Newquist's decision that appropriate circumstances do not exist is based upon the other factors enumerated in footnote 49, including the fact that the magnitude of the benefits to Raritan because of the LTFV imports do not warrant exclusion. Sandvik AB v. United States, 721 F. Supp. 1322 (Ct. Int'l Trade 1989), aff'd, 904 F.2d 46 (Fed. Cir. 1990); Empire Plow Co. v. United States, 675 F. Supp. 1348 (Ct. Int'l Trade 1987).

⁵³19 U.S.C. § 1677(7)(C)(iii).

⁵⁴ Id.

relevant factors "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."⁵⁶

We have consistently held that there is no statutory basis to exclude captive production and shipments from our analysis of the condition of the domestic industry in determining whether there is material injury to a domestic industry by reason of the subject imports.⁵⁷ The statute directs us to consider the condition of "the domestic producers as a whole of a like

⁵⁵(...continued)

⁵⁵ Commissioner Rohr deeply regrets that his colleagues have abandoned the listing of the factors the Commission actually considers in its evaluation of the condition of the industry for a mere recitation of the statute, which by its own terms was never meant to be exclusive. For example, over the years the Commission has recognized that there is no direct indicator called output but rather such measurable "things" such as production and shipments. "Profits" standing alone are usually meaningless unless evaluated in the context of net sales, cost of goods sold, and other expenses. That is why the Commission traditionally recognized that it was evaluating the "financial performance" of the industry not merely its profits or just return on investment. The traditional listing of the factors used by the Commission included within its coverage everything that the statutory list includes and more that the Commission in its experience over the last 15 years has found to be relevant. Its statement reflected the way in which these indicators of the industries condition were actually evaluated. To return to a rote recitation of the words of the statute as though they were a talismanic charm is to decrease the transparency of Commission decision-making and does the public a major disservice. He hopes that in the future his colleagues will return to explaining to the public what it is they actually do.

⁵⁶ 19 U.S.C. § 1677(c)(iii).

⁵⁷ See e.g., Flat-Rolled Steel Investigations, Inv. Nos. 701-TA-319-354 (Preliminary), Inv. Nos. 731-Ta-537-620 (Preliminary), USITC Pub. 2549 (August 1992) at 27-28. Petitioners argue that the Commission should assess the condition of the domestic industry as well as causation of the semifinished domestic industries by excluding "captive" production of special quality semifinished steel, i.e., the special quality semifinished steel products that are consumed by domestic producers to make special quality bars. Petitioners' Prehearing Br. at 10-11. Petitioners state that the "impact of imports should be measured against trade sales of domestic product and apparent consumption of product should be based upon trade sales of domestic and imported product." Id. at 10. Petitioners provide no citations to any statute or legislative history, Commission determinations, or other legal authority for their positions.

product" in the United States.⁵⁸ However, we have noted in captive production cases that imports under investigation may not affect open-market and captive production the same way.⁵⁹ We view the issue of captive consumption as a condition of competition relevant for assessing the condition of the domestic industries and for assessing causation issues.⁶⁰

The Commission has identified at least 22 U.S. producers of free-machining and other special quality semifinished products. Free-machining and other special quality bars are manufactured by at least 20 U.S. producers.⁶¹ Special quality steel semifinished products that fall under the scope of this investigation can be, and are, used to produce products other than special

⁵⁸ 19 U.S.C. § 1677(C)(iii); See e.g., Galabrian Corporation v. United States, Slip. Op. 92-69 (CIT 1992) at 18. We reject petitioners' argument that the Commission should limit its definition of the domestic industry producing the like products to only data for part of the domestic industry (Class 1 producers) because these producers constitute a "major proportion" (in excess of 80 percent) of domestic production of special quality steels. Petitioners rely on one portion of the language of definition of "industry" in 19 U.S.C. § 1677(4)(A) seeking to include only those producers "whose collective output of the like product constitutes a major proportion of the total domestic production of that product." This same argument has been rejected by the Court of International Trade on several occasions. Copperweld Corp. v. United States, 682 F.Supp. 552, 569 (CIT 1988); National Association of Mirror Manufacturers v. United States, 696 F.Supp. 642, 647-48 (CIT 1988).

⁵⁹ See e.g., Polyethylene Terephthalate Film, Sheet, And Strip from Japan, the Republic of Korea, and Taiwan, Invs. Nos. 731-TA-458-60 (Preliminary), USITC Pub. 2292 (June 1990). In addition, Commissioners Nuzum and Watson in the preliminary determinations in the Flat-Rolled Carbon Steel investigations stated that they view captive consumption as a condition of competition, noting that "[c]learly imports do not compete with captive shipments in the same way and to the same extent that they compete with merchant shipments." Id., USITC Pub. 2549 at 189-90.

⁶⁰ Petitioners appear to have mislabeled the captive consumption issue as one involving the composition or size of the database of the domestic industries. As noted above, the Commission has no authority to limit the composition of the domestic industry except pursuant to a related parties analysis.

⁶¹ Report I-26.

quality steel hot-rolled bars, specifically wire rods.⁶² Special quality steel products are produced by both traditional integrated producers and non-traditional (minimill) producers.⁶³

The number of producers of special quality bars has changed in recent years as facilities with electric arc furnaces and continuous casting capabilities have increased.⁶⁴ Special quality steels produced in these facilities were initially considered inappropriate for many uses. However, acceptance of continuous-cast billets for production of special quality bars is rapidly growing.⁶⁵ Many traditional integrated producers of special quality steel have adopted the production techniques of the non-traditional (minimill) suppliers in an effort to retain their competitive position.⁶⁶ Within the past five years, many purchasers of special quality bars have lowered their reduction ratio⁶⁷ requirements allowing them to purchase a particular size bar that has been rolled from a smaller billet. This change has effectively increased the number of bar producers able to meet purchasers'

⁶² Id. I-26. The term "special quality" is not used by the wire rod industry. Preliminary Report, D-13.

⁶³ Id. I-16 - I-18. Petitioners have urged us to assess the condition of only one portion of the domestic producers: those so-called Class 1 producers producing special quality steel. For the reasons set forth in the discussion above regarding like product, we decline to do so. In the final analysis, our evaluation and judgment must relate to the domestic industry as a whole, not its individual components. Copperweld Corporation v. United States, 682 F.Supp. 552, 569 (CIT 1988); see also United Engineering & Forging v. United States, 779 F.Supp. 1375 (CIT 1991) ("The focus of the ITC . . . is on whether or not the domestic industry as a whole is experiencing material injury.").

⁶⁴ See Economics Memorandum at 8-9.

⁶⁵ Report I-16 - I-18.

⁶⁶ Id. I-94.

⁶⁷ See discussion of reduction ratios addressed infra in §IV(D).

requirements and, therefore, has increased competition for sales to purchasers.⁶⁸

While there are some U.S. producers that purchase free-machining and other special quality semifinished products for rerolling, the great majority of semifinished products is produced by U.S. producers for internal consumption.⁶⁹ These semifinished products are further processed to make hot-rolled bar and wire rod. Such products are destined for use in free-machining and other special quality bars and in wire rods.⁷⁰

Both domestic and subject free-machining and other special quality bars are used in the automobile, heavy equipment, and farm machinery industries.⁷¹ While large quantities of these steel products are sold directly to large manufacturers to be further processed for use in final products, significant quantities are also sold to independent forgers, cold finishers, steel distributors, and other customers.⁷² Demand for these products depends largely on the level of overall economic activity.⁷³ Producers and importers have indicated that demand for these products has generally declined since 1989 as a result of the recession and the declining U.S. market share of the major domestic auto producers.⁷⁴ In general, weak demand in the domestic U.S. automotive and construction sectors prior to and during 1991 contributed to

⁶⁸ Report I-33.

⁶⁹ Id. I-41.

⁷⁰ Id.

⁷¹ Id. I-19.

⁷² Id.

⁷³ Id. I-37.

⁷⁴ Id. I-77.

declines in apparent U.S. consumption of such products from the previous year.⁷⁵ Demand for these end use products increased in 1992, resulting in increased sales of free-machining and other special quality hot-rolled bars.

These conditions establish a framework within which the four U.S. industries discussed below were operating during the period of investigation.

B. Condition of the Four Domestic Industries^{76 77}

1. Domestic industry producing free-machining semifinished products

Apparent U.S. consumption of free-machining semifinished products rose 4.5 percent between 1990 and 1992, first declining from 1.03 million short tons in 1990 to 804,444 tons in 1991 (21.9 percent), and then increasing by 33.8 percent to 1.08 million tons in 1992.⁷⁸ U.S. producers' market share of total apparent consumption by quantity fell from 93.4 percent in 1990 to 93.1 percent in 1991 and to 91.3 percent in 1992. U.S. producers' market share by

⁷⁵ Id. I-37.

⁷⁶ We have reviewed petitioners' arguments and the numerous tables and data compilations concerning the condition of the domestic industry at pages 100-119 of their prehearing brief, and at pages 6-10 of their posthearing brief. However, we have been unable to place any reliance on these data or tables because petitioners insisted on using their own database, not our database which consists of all information on the record. The conclusions drawn by petitioners from the assessment of their numbers and tables do not in many instances reflect the data from the four like products set forth in the staff report. Nor do petitioners provide any analysis of the conditions of the four different domestic industries discussed herein.

⁷⁷ Commissioner Rohr notes that the Commission has always based its decision on what it has decided is the appropriate database based upon the specific statutory parameters set by its like product and domestic industry decision. Parties frequently make arguments based on data which is incomplete or based on different parameters, and naturally the Commission will place less weight or ignore arguments based on data other than that which it finds appropriate to the particular investigation. There is nothing in this investigation which is different from any other investigation in this regard.

⁷⁸ Id. I-41.

value rose from 91.5 percent in 1990 to 92.0 percent in 1991, falling to 90.2 percent in 1992.⁷⁹

The capacity of the domestic industry producing free-machining semifinished products decreased from 1.84 million tons in 1990 to 1.81 million tons in 1991, and rose to 1.88 million tons in 1992.⁸⁰ Capacity utilization fell from 52.3 percent in 1990 to 41.6 percent in 1991, rising to 50.7 percent in 1992.⁸¹ U.S. shipments by quantity declined by 22.1 percent between 1990 and 1991, but increased by 31.3 percent in 1992, resulting in a 2.2 percent increase over the period. U.S. shipments by value declined 0.9 percent over the period, falling 21.8 percent between 1990 and 1991 and rising 26.7 percent in 1992.⁸² Productivity declined from 1990 through 1992.⁸³ The average number of production and related workers, hours worked, and total compensation paid fell between 1990 and 1991, before rising in 1992.⁸⁴ Wages fell between 1990 and 1991 and rose in 1992. The average hourly wage for production and related workers producing free-machining semifinished products rose steadily between 1990 and 1992.⁸⁵

⁷⁹ Id. I-41.

⁸⁰ Id. I-45, table 7.

⁸¹ Id. I-42.

⁸² Id. I-47, table 8.

⁸³ Id. I-50, table 11.

⁸⁴ Id.

⁸⁵ Id.

Overall profitability in the free-machining semifinished product industry, as measured by operating income for trade sales,⁸⁶ was positive in 1990, turned negative in 1991, and worsened in 1992, while net sales declined between 1990 and 1991 and rose in 1992.⁸⁷ Gross profit declined steadily, and there were significant losses in 1992.⁸⁸ Operating income as a percentage of net sales was positive in 1990, negative in 1991, and improved, but remained negative in 1992.⁸⁹ Capital expenditures by producers declined between 1990 and 1991, and fell further in 1992.⁹⁰ Research and development expenses increased between 1990 and 1991, before declining in 1992.^{91 92}

2. Domestic industry producing other
special quality semifinished products

Apparent U.S. consumption of other special quality semifinished products fell slightly from 6.23 million tons in 1990 to 5.96 million tons in 1991, and rose to 6.21 million tons in 1992.⁹³ U.S. producers' market share of total apparent consumption by quantity fell from 94.4 percent in 1990 to 91.9 percent in 1991, then rose to 92.9 percent in 1992. U.S. producers' market

⁸⁶ The only information on profitability obtained by the Commission was based on trade sales, as financial data regarding captively consumed semifinished products generally were not reported by the domestic producers of semifinished products. Report I-57.

⁸⁷ Id. I-57.

⁸⁸ Id.

⁸⁹ Id.

⁹⁰ Id. I-65, table 25.

⁹¹ Id. I-66, table 27.

⁹² Based on the factors noted above, Chairman Newquist and Commissioner Rohr conclude that the domestic free-machining semifinished industry is currently experiencing material injury.

⁹³ Id. I-41.

share by value fell from 95.0 percent in 1990 to 93.5 percent in 1991 and remained constant in 1992.⁹⁴

The capacity of the domestic industry producing other special quality semifinished products rose from 7.5 million tons in 1990 to 7.8 million tons in 1992.⁹⁵ Capacity utilization fell from 78.2 percent in 1990 to 70.0 percent in 1991, rising to 72.1 percent in 1992.⁹⁶ U.S. shipments by quantity declined 7.0 percent between 1990 and 1991, but increased 5.4 percent in 1992, resulting in a 2.0 percent decline over the period. U.S. shipments by value declined 6.2 percent between 1990 and 1991 and 6.6 percent in 1992.⁹⁷ Productivity fell between 1990 and 1991, before rising in 1992.⁹⁸ The average number of production and related workers, and hours worked fell between 1990 and 1991, and fell further in 1992.⁹⁹ Wages and total compensation paid fell between 1990 and 1991, before rising in 1992. The average hourly wage for production and related workers rose steadily between 1990 and 1992.¹⁰⁰

Overall profitability in the other special quality semifinished industry, as measured by operating losses for trade sales, worsened between 1990 and 1991 and improved in 1992, while net sales declined throughout the period.¹⁰¹ Operating losses as a percentage of net sales increased between

⁹⁴ Id. I-41.

⁹⁵ Id. I-43, table 7.

⁹⁶ Id. I-42.

⁹⁷ Id. I-47, table 8.

⁹⁸ Id. I-50, table 11.

⁹⁹ Id.

¹⁰⁰ Id.

¹⁰¹ Id. I-61.

1990 and 1991, before decreasing in 1992.¹⁰² Capital expenditures by producers declined between 1990 and 1991, falling further in 1992.¹⁰³ Research and development expenses increased between 1990 and 1991, before declining in 1992.¹⁰⁴ ¹⁰⁵

3. Domestic industry producing
free-machining bars and cut-length rods

Apparent U.S. consumption of free-machining bars fell 0.3 percent between 1990 and 1992, declining from 910,501 tons in 1990 to 741,903 tons in 1991 (18.5 percent), before rising 22.3 percent to 907,674 tons in 1992.¹⁰⁶ U.S. producers' market share of total apparent consumption by quantity fell from 85.3 percent in 1990 to 81.0 percent in 1991, before rising to 84.5 percent in 1992. U.S. producers' market share by value fell from 86.2 percent in 1990 to 81.8 percent in 1991, rising to 84.8 percent in 1992.¹⁰⁷

The capacity of the domestic industry producing free-machining bars fell from 1.29 million tons in 1990 to 1.26 million tons in 1992.¹⁰⁸ Capacity utilization fell from 60.7 percent in 1990 to 47.5 percent in 1991, before rising to 63.2 percent in 1992.¹⁰⁹ U.S. shipments by quantity declined by 22.6

¹⁰² Id. I-61, table 20.

¹⁰³ Id. I-65, table 25.

¹⁰⁴ Id. I-66, table 27.

¹⁰⁵ Based on the factors noted above, Chairman Newquist and Commissioner Rohr conclude that the domestic industry semifinished other special quality industry is currently experiencing material injury.

¹⁰⁶ Id. I-41.

¹⁰⁷ Id. I-40, table 5.

¹⁰⁸ Id. I-45, table 7.

¹⁰⁹ Id.

percent between 1990 and 1991, but rose by 27.6 percent in 1992, resulting in a 1.2 percent decline over the period. U.S. shipments by value declined 22.6 percent between 1990 and 1991, but rose 23.6 percent in 1992, resulting in a 4.3 percent decline over the period.¹¹⁰ Productivity in the free-machining bar industry fell between 1990 and 1991, before rising in 1992.¹¹¹ The average number of production and related workers, hours worked, wages and total compensation paid, and average hourly wage for production and related workers fell between 1990 and 1991, before rising in 1992.¹¹²

Overall profitability in the free-machining bar industry, as measured by operating losses, improved by 8.8 percent between 1990 and 1991, then declined 13.3 percent in 1992. Net sales declined 22.9 percent between 1990 and 1991, and then increased by 24.7 percent between 1991 and 1992.¹¹³ Operating losses as a percentage of net sales worsened from 7.6 percent in 1990 to 8.9 percent 1991, before improving to 8.2 percent in 1992.¹¹⁴ Capital expenditures declined between 1990 and 1991, falling further in 1992.¹¹⁵ Research and development expenses remained constant between 1990 and 1991, before declining in 1992.^{116 117}

¹¹⁰ Id. I-46, table 9.

¹¹¹ Id. I-50, table 11.

¹¹² Id.

¹¹³ Id. I-53.

¹¹⁴ Id.

¹¹⁵ Id. 65, table 25.

¹¹⁶ Id. 66, table 27.

¹¹⁷ Based on the factors noted above, Chairman Newquist and Commissioner Rohr conclude that the domestic free-machinizing bar and cut-length rods industry is currently experiencing material injury.

4. Domestic industry producing other special quality
bars and cut-length rods

Apparent U.S. consumption of other special quality bars fell 1.9 percent over the period, decreasing from 4.38 million tons in 1990 by 4.6 percent to 4.18 million tons in 1991, and then rising 2.8 percent to 4.30 million tons in 1992.¹¹⁸ U.S. producers' market share of total apparent consumption by quantity fell from 96.9 percent in 1990 to 95.6 percent in 1991, rising to 95.8 percent in 1992. U.S. producers' market share by value fell from 96.9 percent in 1990 to 95.8 percent in 1991 to 95.7 percent in 1992.¹¹⁹

The capacity of the domestic industry producing other special quality bars rose from 5.6 million tons in 1990 to 5.7 million tons in 1992.¹²⁰ Capacity utilization fell from 76.5 percent in 1990 to 70.4 percent in 1991, rising to 73.2 percent in 1992.¹²¹ U.S. shipments by quantity declined 5.9 percent between 1990 and 1991, but rose by 3.0 percent in 1992, resulting in a 3.0 percent decline over the period. U.S. shipments by value declined 7.8 percent between 1990 and 1991 and 0.3 percent in 1992.¹²² Productivity in the other special quality bar industry rose 8.8 percent over the period of investigation.¹²³ The average number of production and related workers, hours worked, and total compensation paid for the other special quality bar industry

¹¹⁸ Id. I-41.

¹¹⁹ Id. I-40, table 5.

¹²⁰ Id. I-45, table 7.

¹²¹ Id.

¹²² Id. I-46, table 9.

¹²³ Id.

fell between 1990 and 1991, falling further in 1992.¹²⁴ Total wages and the average hourly wage for production and related workers fell between 1990 and 1991, before rising in 1992.¹²⁵

Overall profitability in the other special quality bar industry, as measured by operating income, fell from \$95.5 million in 1990 to \$19.7 million in 1991, rising to \$59.7 million in 1992. Net sales declined from 3.08 million tons in 1990 to 2.88 million tons in 1991, before rising to 2.92 million tons in 1992.¹²⁶ Operating income as a percentage of net sales declined from 6.4 percent in 1990 to 1.4 percent in 1991, rising to 4.4 percent in 1992.¹²⁷ Capital expenditures declined between 1990 and 1991, falling further in 1992.¹²⁸ Research and development expenses increased between 1990 and 1991, before declining in 1992.^{129 130}

IV. NO MATERIAL INJURY BY REASON OF LTFV AND SUBSIDIZED IMPORTS

In determining whether the domestic industry is materially injured by reason of the imports under investigation, the statute directs us to consider:

(I) the volume of imports of the merchandise which is the subject of the investigation;

(II) the effect of imports of that merchandise on prices in the United States for like products; and

¹²⁴ Id. I-50, table 11.

¹²⁵ Id.

¹²⁶ Id. I-56, table 14.

¹²⁷ Id.

¹²⁸ Id. 65, table 25.

¹²⁹ Id. 66, table 27.

¹³⁰ Based on the factors noted above, Chairman Newquist and Commissioner Rohr conclude that the domestic hot-rolled other special quality bar and cut-length rods industry is currently experiencing material injury.

(III) the impact of imports of such merchandise on domestic producers of like products, but only in the context of production operations within the United States.¹³¹

In making this determination, we consider "such other economic factors as are relevant to the determination" ¹³² However, we do not weigh causes. ¹³³ ¹³⁴ ¹³⁵ ¹³⁶

¹³¹ 19 U.S.C. § 1677(7)(B)(i).

¹³² 19 U.S.C. § 1677(7)(B)(ii).

¹³³ See, e.g., Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1101 (CIT 1988).

¹³⁴ Chairman Newquist, Commissioner Rohr, and Commissioner Nuzum have noted that the Commission need not determine that imports are "the principal, a substantial or a significant cause of material injury." S. Rep. No. 249, 96th Cong., 1st Sess. 57 and 74 (1979). Rather, a finding that imports are a cause of material injury is sufficient. E.g., Metallverken Nederland, B.V. v. United States, 728 F. Supp. 730, 741 (CIT 1989); Citrosuco at 1101.

¹³⁵ Vice-Chairman Watson's views on the proper standard of causation are set out in Ferrosilicon from Russia and Venezuela, Inv. Nos. 303-TA-23(Final) and 731-TA-568 and 570 (Final), USITC Pub. 2650 (June 1993) at 312 n.128.

¹³⁶ Commissioner Brunsdale and Commissioner Crawford note that the statute requires that the Commission determine whether a domestic industry is "materially injured by reason of" the allegedly LTFV and subsidized imports. Many, if not most, domestic industries are subject to injury from more than one economic factor. Of these factors, there may be more than one that independently is causing material injury to the domestic industry. It is assumed in the legislative history that the "ITC will consider information which indicates that harm is caused by factors other than the less-than-fair-value imports." S. Rep. No. 249 at 58, 75. However, the legislative history makes it clear that the Commission is not to weigh or prioritize the factors that are independently causing material injury. Id. at 57, 74; H.R. Rep. No. 317 at 47. The Commission is not to determine if the allegedly LTFV and subsidized imports are "the principal, a substantial or a significant cause of material injury." S. Rep. No. 249 at 57, 74. Rather, it is to determine whether any injury "by reason of" the allegedly LTFV and subsidized imports is material. That is, the Commission must determine if the subject imports are causing material injury to the domestic industry. "When determining the effect of imports on the domestic industry, the Commission must consider all relevant factors that can demonstrate if unfairly traded imports are materially injuring the domestic industry." S. Rep. No. 71, 100th Cong., 1st Sess. 116 (1987)(emphasis supplied).

In determining whether there is material injury by reason of the LTFV imports, the statute directs us to consider "whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."¹³⁷ With respect to price, the statute directs us "to consider whether . . . there has been significant price underselling by the imported merchandise."¹³⁸ The statute also requires us to consider whether "the effect of imports . . . otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred to a significant degree."¹³⁹ Set forth below is our analysis of causation issues regarding each of the four domestic industries.

A. Free-machining semifinished products

We find that LTFV subject imports of free-machining semifinished products were not significant and had no significant volume effect on the domestic industry throughout the period of investigation.¹⁴⁰ Imports of subject steel products from Brazil remained low over the period of investigation, both absolutely and relative to consumption.¹⁴¹ The subject

¹³⁷ 19 U.S.C. § 1677(7)(C)(i).

¹³⁸ 19 U.S.C. § 1677(C)(ii)(I).

¹³⁹ 19 U.S.C. § 1677(C)(ii)(II).

¹⁴⁰ Data regarding the import share of apparent domestic consumption of free-machining semifinished products are confidential.

¹⁴¹ Petitioners argue that Commission data significantly understate import penetration, and that these data should be calculated using official import statistics. The Commission declines to use these data due to their misleading nature: Official U.S. imports from Brazil include nonsubject imports of lead and bismuth steel, and consequently, Brazilian imports' share of U.S. consumption is overstated; official statistics do not reflect Commerce's classification of all Villares product as bars, and as a result, semifinished
(continued...)

import share of apparent domestic consumption of free-machining semifinished products rose between 1990 and 1991, but declined significantly in 1992 to a level considerably below that at the beginning of the period of investigation.¹⁴²

We also find no significant adverse price effects by the subject imports.¹⁴³ The limited evidence in the record indicates that the subject imports are relatively good substitutes for the domestic like products.¹⁴⁴ However, these imports competed directly only with those domestic semifinished products in the non-captive market, which constituted only a small fraction of the production of the domestic industry.^{145 146} Only three U.S. producers of free-machining semifinished steels reported open market sales of these

¹⁴¹(...continued)

imports from Brazil are overstated and bar imports are understated; finally, the HTS breakdown does not allow separate compilation of these statistics for free-machining and other special quality steel semifinished products. July 24, 1993 Memorandum to the Record in Inv. No. 731-TA-572 (Final) from Stephanie Kaplan, investigator. We note that despite these qualifications, import penetration of Brazilian semifinished products and bars throughout the period is not substantially different from their share of the quantity of U.S. consumption calculated from data reported in the Commission's questionnaires.

¹⁴² The preliminary bond requirements were imposed by Commerce on January 11, 1993, following the Commission's affirmative preliminary determination. Report I-3. The time period of the most recent data used in this investigation is through the end of 1992. Accordingly, while we are cognizant of the possibility of distortions of data resulting from the filing of a petition, we do not believe that such distortions exist in the data used for this investigation.

¹⁴³ No pricing data were collected for free-machining semifinished products.

¹⁴⁴ Economics Memorandum at 19.

¹⁴⁵ Report I-47, table 8.

¹⁴⁶ Chairman Newquist, Commission Rohr, and Commissioner Nuzum emphasize that by stating that the imports "compete directly" with only a segment of the imports they are not drawing any conclusion that such imports might or might not have effects on that portion of market with which it does not "compete directly."

products, while seven domestic producers consumed all of their production of free-machining steels. No domestic producer identified any particular adverse price effects specifically caused by imports of semifinished free-machining steels.¹⁴⁷ Nor did any domestic producer provide any evidence of lost sales or lost revenues from the subject imports.¹⁴⁸ In light of the conditions of competition in this industry, we find that the volume of subject imports of free-machining semifinished steel is too small to have had any significant price suppressing or depressing effects.¹⁴⁹

Based on the foregoing, the very small level of free-machining semifinished imports, particularly in the last year of the period of investigation, and the absence of persuasive evidence that the subject imports caused significant price depression or suppression of domestic prices, we determine that the domestic industry producing free-machining semifinished steel products is not materially injured by reason of the LTFV imports.¹⁵⁰

¹⁴⁷ In this regard, we have carefully reviewed all producer questionnaire responses, as well as the evidence presented by petitioners. See e.g., Petitioners' Post-Conference Br., proprietary exhibits 2-3; Petitioners' Prehearing Br., tables 5-8 at 78-79, 81-82.

¹⁴⁸ Id.

¹⁴⁹ While the unit values of domestic free-machining semifinished products, as well as the subject imports, declined during the period of investigation, the unit values of Brazilian semifinished imports were higher than comparable unit values for domestic semifinished imports. We have placed no reliance on such unit values given the difficulty expressed by petitioners and other domestic producers in calculating values for captively consumed special quality semifinished steel and the substantial difference in Brazilian unit values between landed, duty-paid imports and U.S. importers' U.S. shipments of imports.

¹⁵⁰ Commissioner Brunsdale and Commissioner Crawford note that the dumping margin in this case is 19.67 percent. Even if they make the assumption most favorable to petitioner and find that no subject imports would be sold in the U.S. market at fairly traded prices, they would not find material injury by reason of dumped imports. Domestic producers would not have been able to

(continued...)

B. Other special quality semifinished products¹⁵¹

We find that the LTFV subject imports of other special quality semifinished products were not significant and had no significant volume effect on the domestic industry throughout the period of investigation. The subject imports' share of apparent domestic consumption of other special quality semifinished products by value and volume rose slightly over the period of investigation. However, the import penetration level, even in 1992, was not significant.

Substantially all of the subject imports of other special quality semifinished products are imported for Raritan and produced by the Brazilian producer Acominas.¹⁵² We find that the specific rimmed and low residual steels, made by basic oxygen furnaces (BOF) and ingot casting, produced by Acominas, and purchased by Raritan, were not available from domestic sources during the period of the investigation. Stringent product specifications from

¹⁵⁰(...continued)

increase their prices even if subject imports had been fairly traded and sold at prices 19.67 percent higher. Purchasers could have turned to fairly traded imports to avoid the price increase. Moreover, with the significant excess capacity in the domestic industry, some producers could have expanded their production to satisfy demand of purchasers seeking to avoid the price increase. The significant excess capacity in the domestic market and the presence of fairly traded imports make it very unlikely that this extremely small volume of subject imports had any adverse effect on domestic prices.

¹⁵¹ Petitioners claim that the Commission's data improperly treat Acominas' products as semifinished, not bars. Commerce determined that Acominas' products, while having some bar characteristics, did not meet bar tolerances and otherwise were semifinished products. Based on the information obtained in this investigation, we have also treated such products as semifinished. Report I-11 - I-12.

¹⁵² Chairman Newquist's negative determination of material injury by reason of LTFV imports of other special quality semifinished products from Brazil is based primarily upon the absence of significant volume and price effects of the subject imports. Chairman Newquist also notes that the unavailability of special quality semifinished products required by Raritan has been exceptionally well-documented in this investigation.

Raritan's customers in the tire cord and cold-heading industries support Raritan's assertion that its customers demand and specify rimmed steel and low residual steel made by BOF and ingot casting.¹⁵³ Raritan also presented evidence of five successful short supply requests to Commerce during the period of the VRAs in 1988 and 1989.¹⁵⁴ At present, Raritan continues to be unable to find domestic sources for the rimmed and low residual, BOF steel produced by Acominas to satisfy their customers' requirements.¹⁵⁵

We consider it significant that representatives from petitioners admitted they had not produced rimmed steel or BOF steel for sale and had not offered such steel for sale to Raritan.¹⁵⁶ The record indicates that Raritan officials stated that Timken and Republic sales officials never offered to provide Raritan with the BOF and rimmed steels of the type produced by

¹⁵³ See invoices and specifications attached to Exhibit 7 to Raritan's Posthearing Brief. Petitioners' witnesses admitted at the hearing that domestic steel producers such as Raritan and petitioners "must meet the users' requests whatever they may be . . . [i]n other words, we sell basically on a fitness for use basis ." Hearing Tr. at 67-69. In light of this testimony and Raritan's customers' specifications referenced above, we find it curious that petitioners' metallurgists would assert in their posthearing submission that Raritan's product specifications "appear overly restrictive. . . ." Petitioners' Posthearing Br., Answers to Questions, Exhibit 6 at 1; see also Raritan Prehearing Br. exhibits 1 and 2; Raritan Posthearing Br. exhibits 6.

¹⁵⁴ Id. at 7-10, exhibit 5. Exhibit 5 contains a comprehensive chronology of the requests to and decisions of Commerce relating to the short supply requests. In particular, we note that Commerce indicated that it regularly performed a survey of domestic producers of hot-rolled carbon steel at each request to determine if any produced the special quality semifinished product sought by Raritan. At no time did Commerce determine that there was any such domestic production available for Raritan's needs. Moreover, Commerce specifically rejected some of the same arguments now raised by petitioners' metallurgists when granting Raritan's short supply requests.

¹⁵⁵ Report I-35 - I-37. We note that other confidential information regarding the effects of this investigation support the unavailability of any domestic sources for the Acominas billets purchased by Raritan. Report I-36.

¹⁵⁶ Hearing Tr. at 57.

Acominas even though (1) Timken provides Raritan with other types of steel and (2) Raritan met with Timken and Republic officials to review all of Raritan's semifinished needs.¹⁵⁷

Because substantially all of the subject imports were products for which there was no domestic product that could be substituted, we find that such imports had no adverse price effects on the domestic industry producing special quality semifinished steel. The subject imports were not close substitutes for the domestic like products. Thus, the rimmed and low residual BOF special quality semifinished imports from Acominas had no significant impact on the price of any other types of special quality semifinished steels, such as alloy steels or carbon steels made by electric arc furnaces and continuous casting processes.^{158 159}

¹⁵⁷ Hearing Tr. 125; see also Raritan Posthearing Br., exhibit 6. In assessing the credibility of the competing affidavits of Raritan and the petitioners on this issue, we note that Raritan -- not Timken or Republic -- has been dealing with Raritan's customers' requirements for particular steel in rods applications on a daily basis since the late 1970s. By contrast, there is no evidence that the Timken and Republic metallurgists have experience in rimmed steel substitutes in rods applications. Their joint affidavit only references knowledge of such substitutes in flat-rolled products. Accordingly, the broad assertion by petitioners' metallurgists that "[t]here is no reason to assume that substitute products are not equally feasible in wire rods applications" has not been awarded much weight.

¹⁵⁸ The only pricing data for other special quality semifinished steel involved product 1. It showed substantial margins of underselling by the subject imports. Report I-90. However, the domestic products covered by this pricing comparison include all types of semifinished carbon special quality products with the exception of free-machining semifinished products. The vast majority of these subject imports captured by this pricing comparison were the Acominas billets purchased by Raritan. Given our finding that there was no comparable domestic production of these steels, this pricing series has no probative value for assessing any price suppressing or depressing effects of the subject imports.

¹⁵⁹ Commissioner Rohr concurs with his colleagues, but notes that he does not base his conclusion solely on the substitutability of the products. He finds that the record as a whole contains no evidence of such effects.

Because of the lack of substitutability, subject imports did not have a significant depressing or suppressing effect on domestic prices. In addition, there is no evidence of a price depressing effect by such imports as domestic weighted-average prices for domestic semifinished other special quality products remained exceptionally stable during January 1990-December 1992, fluctuating very slightly.¹⁶⁰ At the same time, prices of the subject imports generally increased over the period of investigation. No lost sales allegations were made about other special quality semifinished products.

Based on the foregoing, we find that the domestic industry producing semifinished other special quality products is not materially injured by reason of the LTFV imports.¹⁶¹

C. Free-machining bars

We find that LTFV subject imports of free-machining bars and cut-length rods were not significant and had no significant volume effect on the domestic industry throughout the period of investigation. The subject imports were minuscule in terms of volume, value, and market share throughout the period of investigation.

We also find no significant adverse price effects by the subject imports.¹⁶² The limited evidence in the record indicates that the subject

¹⁶⁰ Id. I-89.

¹⁶¹ Commissioner Brunsdale and Commissioner Crawford note that the dumping margin in this case is 19.67 percent. While there is little substitutability between subject imports and the domestic like product in this case, even if they assumed that no subject imports would be sold in the U.S. market at fairly traded prices, they would not find material injury by reason of dumped imports. Because the domestic industry does not produce products that can be substituted for substantially all of the subject imports, they would not have been able to increase their prices even if subject imports had been fairly traded and sold at prices 19.67 percent higher.

¹⁶² No pricing data were collected for free-machining bars.

imports are relatively good substitutes for the domestic like products.¹⁶³ However, no domestic producer provided any evidence of lost sales or lost revenues from the subject imports.¹⁶⁴ Nor is there any persuasive evidence that specifically links the subject imports to any significant price depressing or suppressing effects on the domestic free-machining bar and cut-length rod industry.¹⁶⁵ In light of the conditions of competition in this industry, we find that the volume of subject imports of free-machining semifinished steel is too small to have any significant price suppressing or depressing effects.

In sum, we find that given the minuscule level of subject imports, and the absence of any information in the record suggesting that such a minuscule volume has any adverse price effects, the domestic industry producing free-machining bars and cut-length rods is not materially injured by reason of the LTFV imports.¹⁶⁶

¹⁶³ Economics Memorandum at 19.

¹⁶⁴ One U.S. producer mentioned a lost sale allegation on free-machining grade 1100, but provided no specific data regarding the purchaser, the shipment size, the date of the alleged lost sale, or to whom the sale was lost. Questionnaire response. We have carefully reviewed the domestic producer questionnaire responses as well as evidence submitted by petitioners which contains information relating to price effects of other special quality subject imports, but found nothing regarding subject imports of free-machining bars and cut-length rods. See Petitioners' Postconference Br., proprietary exhibits 2-3; Petitioners' Prehearing Br. tables 5-8, at 77-78, 81-82.

¹⁶⁵ Id.

¹⁶⁶ Commissioner Brunsdale and Commissioner Crawford note that the dumping margin in this case is 27 percent. They also note that there is excess domestic capacity in the free-machining bar market and a substantial quantity of fairly traded imports. Domestic producers would not have been able to increase their prices even if subject imports had been fairly traded and sold at prices 27 percent higher. Purchasers could have turned to fairly traded imports to avoid the price increase. Moreover, with the significant excess capacity in the domestic industry, some producers could have expanded their
(continued...)

D. Other special quality bars

We find that LTFV imports of other special quality bars were not significant and had no significant volume effect on the domestic industry throughout the period of investigation. The volume and value of subject imports of other special quality bars as a percentage of apparent domestic consumption were low throughout the period of investigation. The absolute volume of the subject imports declined over the period of the investigation. Domestic producers retained over 95 percent of market share over the period of investigation.¹⁶⁷ Although subject imports increased between 1990 and 1991, they declined in 1992 to approximately the same level as the beginning of the investigation.

Prices of domestically-produced other special quality bars, as reported by purchasers, fluctuated within relatively narrow ranges during 1990-92.¹⁶⁸ Several products showed moderate price declines, while others were more stable. Similarly, average prices reported for Brazilian products fluctuated within small ranges or had slightly declining trends.¹⁶⁹ Prices for the one

¹⁶⁶(...continued)

production to satisfy demand of purchasers seeking to avoid the price increase. Given these facts and the analysis above, they find that the minuscule quantity of subject imports from Brazil did not adversely affect domestic prices.

¹⁶⁷ Report I-41.

¹⁶⁸ Id. I-88 - I-89, tables 43-47. In this final investigation we have relied primarily on price data collected from purchasers. The Commission did not obtain complete pricing data from a full range of domestic producers and only obtained importers' data from a small number of importers. By contrast, the purchasers' questionnaire pricing data were much more complete.

¹⁶⁹ Id.

domestic product for which no Brazilian imports were reported also declined significantly in the last quarter of 1992.¹⁷⁰

The record indicates that imports of other special quality bars and cut-length rods are relatively good substitutes for domestic other special quality bars.¹⁷¹ Purchasers, producers, and importers generally regard the domestic and subject imports of other special quality bar products from Brazil as similar in quality and substitutable.¹⁷²

As we noted in the preliminary determination, the parties indicate that domestic hot-rolled special quality bars typically sell at a 5 to 8 percent price premium over subject imports, reflecting in part shorter lead times.¹⁷³ Petitioners acknowledged the existence of this price premium:

[d]omestic producers were expected to come within approximately 1% up to 8% (e.g., "striking distance") of the lowest price quote. This premium over the lowest-priced competitor is tolerated as a matter of convenience: there is no need to deal with exchange rates, foreign languages, . . . longer delivery schedules, and different ways of arranging business transactions.¹⁷⁴

Another U.S. purchaser indicated that its "price objective was to go to Brazil any time their price was at least ten percent lower than the prevailing domestic price."¹⁷⁵

The pricing data provided by purchasers of other special quality bars indicate that prices for Brazilian other special quality products were lower

¹⁷⁰ Id. I-89, table 48.

¹⁷¹ Economics Memorandum at 17.

¹⁷² Id. I-85.

¹⁷³ Preliminary determination at 34.

¹⁷⁴ Petitioners' Posthearing Br. at 59 n.10.

¹⁷⁵ Id. at 59.

in 35 out of 45 pricing comparisons.¹⁷⁶ However, the margins of underselling generally were small, with 34 out of 35 comparisons below 10 percent, and many below 5 percent.¹⁷⁷ If the 1 to 8 percent price premium for domestic other special quality bars is factored into the pricing analysis, then the relatively small margins of underselling by the Brazilians become even less significant.^{178 179 180}

In assessing whether these pricing data demonstrate that prices of domestic other special quality bars were depressed or suppressed by the subject imports, we note that petitioners admitted that there were a number of domestic "minimills" offering other special quality bar products at "discounted prices in their attempts to lure business away from" the integrated U.S. producers.¹⁸¹ Several U.S. purchasers confirmed that new domestic entrants and existing participants that expanded their production lines were aggressively pricing other special quality bars to undercut consistently prices of both domestic traditional mills and the Brazilian

¹⁷⁶ Report I-91. The subject imports undersold the domestic product in essentially all price comparisons based on data reported by U.S. producers and importers.

¹⁷⁷ Id. I-88 - I-89, tables 43-47.

¹⁷⁸ Petitioners argue that the Brazilian producers have further reduced prices by offering generous credit or roll and hold terms. Petitioners' Prehearing Br. at 61-62. We place little weight on these factors for the reasons set forth in the Economics Memorandum at 20-21.

¹⁷⁹ Chairman Newquist does not concur in this observation.

¹⁸⁰ Commissioner Nuzum notes that the fact that domestic producers may be able to obtain some price premium compared with importers does not negate the possibility of adverse price effects by the imports.

¹⁸¹ Petitioners' Prehearing Br. at 40.

subject imports, particularly in the latter portion of the period of investigation.¹⁸²

The emergence of new domestic entrants and the expansion of existing domestic producers into the special quality bar market, most of whom primarily produce special quality bars by continuous casting methods, were facilitated by the changes in reduction ratio specifications by a number of large U.S. purchasers.¹⁸³ The changes in reduction ratio specification have allowed more and more continuous cast producers to become approved suppliers in the finished special quality bar market.¹⁸⁴ These developments are reflected in changes in the relative shares of non-traditional and reconstituted mills in the special quality bar market from 1990 to 1992.¹⁸⁵

Large U.S. purchasers reported that a number of domestic producers have recently made continuous casting improvements which have substantially increased the number of domestic producers capable of being qualified in the

¹⁸² Hearing Tr. at 160-172; Villares' Prehearing Br. at 34-40.

¹⁸³ Hearing Tr. at 163-65, 175. Prior to 1990, most large U.S. purchasers of bars required and specified a relatively high "reduction ratio" of 10:1 in order to achieve the internal quality characteristics of the finished product. Thus, to achieve such a ratio, the surface area of the semifinished product would have to be ten times larger than the surface area of the finished bars. As a practical matter, this meant that only those producers of special quality bars with ingot casting or very large bloom casters could produce many sizes of special quality bars. Domestic producers with continuous casters which could only produce a semifinished billet of six inches in diameter or less could not compete in the considerable majority of other special quality bar sales. However, beginning around 1990, a number of large domestic purchasers changed their reduction ratio specifications to accept the use of special quality bars rolled from smaller blooms and billets produced by the continuous cast methods. *Id.* Report I-46; Purchaser questionnaires and submissions; Villares Prehearing Br. at 25; Petition, exhibit 9, Timken Sales Report June 29, 1989, at 2, ¶¶ 3-4.

¹⁸⁴ Villares Prehearing Br. at 25.

¹⁸⁵ *Id.* at 29, exhibit 3.

other special quality bar market.¹⁸⁶ For example, petitioner Timken recently commenced production of special quality steels with a continuous caster. These new entrants to the market have become increasingly competitive, to the point of underselling the subject Brazilian imports.¹⁸⁷ Acceptance of lower-cost domestically produced continuous cast product has resulted in substantial declines in purchases of Brazilian imports in 1992, with domestic producers garnering the business.¹⁸⁸

The record supports several of petitioners' allegations of lost sales and revenues of other special quality bars during the 1990-91 period.¹⁸⁹ However, no such allegations for 1992 were confirmed by the Commission. Large U.S. purchasers cited in allegations of lost sales and revenues covering the latter portion of the period of investigation confirmed that Brazilian imports increasingly have become less competitive with domestic producers.¹⁹⁰ Accordingly, while the record does contain some evidence of lost sales and revenues, considering the absence of volume and price effects attributable to the subject imports, these lost sales and revenues do not appear to

¹⁸⁶ See generally, Hearing Tr. 158-174.

¹⁸⁷ Hearing Tr. at 158-62 (Norris Cylinder, since the last quarter of 1990, reported that non-Brazilian suppliers sold special quality products at a lower price than the Brazilians), 162-67 (Eaton Corporation, in 1992 and 1993, replaced most of the contract tonnage previously purchased from Brazil with lower priced domestic products).

¹⁸⁸ Id. I-94.

¹⁸⁹ Petitioners' Prehearing Br. at 80-82; Report I-92, I-94 - I-96.

¹⁹⁰ Id. I-92, I-94 - I-96.

demonstrate more than a de minimis price suppressing or depressing effect on the domestic industry as a whole.¹⁹¹

In sum, based on the foregoing, and in particular the small and declining volume of other special quality bar imports, the lack of any significant price depressing or suppressing effects of imports on the domestic industry, and the existence of aggressive competition within the domestic industry, we find that the domestic industry producing other special quality hot-rolled bars and cut-length rods is not materially injured by reason of the LTFV imports.¹⁹²

V. NO THREAT OF MATERIAL INJURY

We further determine that there is no threat of material injury to the relevant U.S. industries by reason of LTFV imports of special quality semifinished products and special quality bars and cut-length rods from Brazil. Section 771(7)(F) of the Act directs the Commission to consider whether a U.S. industry is threatened with material injury by reason of the subject imports "on the basis of evidence that the threat of material injury

¹⁹¹ Commissioner Brunsdale and Commissioner Crawford do not rely on anecdotal evidence that competition from imports caused domestic producers to lose particular sales or forced them to reduce their prices on other sales in reaching their determinations.

¹⁹² Commissioner Brunsdale and Commissioner Crawford note that the dumping margin in this case is 27 percent. Even if they assumed that no subject imports would be sold in the U.S. market at fairly traded prices, they would not find material injury by reason of dumped imports. Domestic producers would not have been able to increase their prices even if subject imports had been fairly traded and sold at prices 27 percent higher. Purchasers could have turned to fairly traded imports to avoid the price increase. Moreover, with the significant excess capacity in the domestic industry, some producers could have expanded their production to satisfy demand of purchasers seeking to avoid the price increase. Domestic producers' excess capacity and the presence of fairly traded imports make it very unlikely that this extremely small volume of subject imports had any adverse effect on domestic prices.

is real and that actual injury is imminent."¹⁹³ Under the statute,¹⁹⁴ we are required to consider a number of criteria addressed below with respect to each of the four domestic industries. While an analysis of the statutory threat factors necessarily involves projection of future events, "[s]uch a determination may not be made on the basis of mere conjecture or supposition."¹⁹⁵ In addition, we must consider whether dumping findings or antidumping remedies in markets of foreign countries against the same class of merchandise suggest a threat of material injury to the domestic industry.¹⁹⁶

While we analyze threat of material injury with respect to each of the four domestic industries, the data regarding Brazilian production capacity, production, and capacity utilization are available only for subject special quality semifinished (combining non-lead and bismuth free-machining and other special) and subject special quality bar (combining non-lead and bismuth free-machining and other special quality) breakouts. The absence of such data breakouts has no impact on our analysis.

A. Free-machining semifinished products

Brazilian productive capacity for all special quality semifinished products increased by a small amount during 1990-91 and rose by a slightly larger, but still small percentage between 1991 and 1992.¹⁹⁷ This increase was

¹⁹³ 19 U.S.C. § 1677(7)(F)(ii).

¹⁹⁴ See 19 U.S.C. § 1677(7)(F)(iii).

¹⁹⁵ 19 U.S.C. § 1677(7)(F)(ii). See also S. Rep. No. 249, 96th Cong., 1st Sess. 88-89 (1979); Metallverken Nederland B.V. v. United States, 744 F. Supp. 281, 287 (CIT 1990).

¹⁹⁶ 19 U.S.C. § 1677(7)(F)(iii)(I). This antidumping investigation does not involve subsidies or agricultural products.

¹⁹⁷ Report I-69.

due to one Brazilian producer that does not produce free-machining semifinished steels. The percentage of total Brazilian special quality semifinished production exported to the United States and the percentage of all Brazilian exports shipped to the United States were small during the period of investigation.¹⁹⁸ Accordingly, we do not find that the scale of Brazilian operations is sufficiently large that this increase in capacity is "likely to result in a significant increase in imports of the merchandise to the United States."

Market penetration of subject imports corresponding to the like product did not "rapidly increase" between 1990 and 1992. Imports of free-machining semifinished products from Brazil decreased over the period of investigation.¹⁹⁹ No evidence presented by petitioners suggests that this small level of imports is likely to increase to injurious levels in the immediate future.

We find no probability that imports of free-machining semifinished products from Brazil will enter the United States in the immediate future at prices that will have a suppressing or depressing effect on U.S. prices. This conclusion is based on our finding in the causation analysis above that the subject imports have no present effect on prices. No credible evidence has been presented which indicates that imports will have an adverse price effect in the immediate future.

The record does not suggest any substantial increase in inventories of the subject imports in the United States. Inventories of imports from Brazil

¹⁹⁸ Report I-69, table 28.

¹⁹⁹ Id. I-78, table 35.

of free-machining semifinished steel were not a factor throughout the period of investigation.²⁰⁰

Brazilian producers of special quality semifinished had unused capacity which increased somewhat during the period of investigation.²⁰¹ However, consumption of special quality semifinished products grew steadily in the Brazilian home market.²⁰² Projections for 1993 and 1994 are for capacity utilization rates of special quality semifinished products to increase with increased Brazilian demand for automobiles.²⁰³ There is no evidence suggesting that this excess capacity will suddenly be used to produce large quantities of special quality semifinished products which will be diverted for sale in the United States.²⁰⁴ While Brazilian capacity utilization rates decreased from 1991 to 1992, the percentage of Brazilian production shipped to the United States decreased for special quality semifinished products.²⁰⁵

We have identified no other adverse trends that would suggest a threat of material injury by the subject imports. Petitioners speculate that there are "ambitious plans" by the year 2000 to expand Brazil's manufacturing capacity for special quality products.²⁰⁶ These arguments present no evidence that actual injury is imminent. Rather, they involve speculations about

²⁰⁰ Id. I-74, table 31.

²⁰¹ Id. I-68 - I-69, table 28.

²⁰² Id. I-69, table 28.

²⁰³ Id.; Villares' Posthearing Br. at 15.

²⁰⁴ These last two sentences also apply to the other three domestic industries discussed below.

²⁰⁵ Id. I-68 - I-69, tables 28-29..

²⁰⁶ Petitioners' Prehearing Br. at 126.

alleged increases in production over six years into the future.²⁰⁷ Similarly, we find that petitioners' arguments concerning Brazilian economic and monetary policy to be nothing more than conjecture and speculation.²⁰⁸ Many of the monetary and economic policies which petitioners claim will result in massive increases in exports have been in place for much of the period of investigation.²⁰⁹

With respect to the issue of product shifting, we reject petitioners' argument that the recent EC dumping order which imposed a duty between 1.7 and 15 percent on special quality semifinished alloy steel will cause Brazilian producers to shift their production to special quality products, including free-machining semifinished steels, that do not have such duties.²¹⁰ These duties are limited; they apply only to special quality alloy steel products and not to special quality carbon steel semifinished products and special quality carbon and alloy steel bars from Brazil. Moreover, we note that the preliminary EC order, which was issued on March 30, 1992, did not result in

²⁰⁷ We also reject petitioners' argument that the expiration of the VRA agreement and the privatization of the Brazilian steel industry will lead to gains in capacity and export levels. Petitioners' Prehearing Br. at 126-27. With respect to the VRA expiration, we note that the total quantity and value of Brazil's combined exports to the United States of special quality products declined following the expiration of the VRAs. We also find that petitioners' arguments about the privatization of Brazilian mills is speculative. Petitioners have presented no substantial evidence that privatized Brazilian mills will be able to maintain, let alone increase capacity. Accordingly, this argument does not constitute "evidence that the threat of material injury is real and that actual injury is imminent." This note and the foregoing paragraph also apply to the discussions of the other three domestic industries addressed below.

²⁰⁸ Petitioners' Prehearing Br. at 122-24.

²⁰⁹ The foregoing paragraph applies to the other three domestic industries discussed below.

²¹⁰ Petitioners' Prehearing Br. at 128-29.

increases of Brazilian shipments of other special quality semifinished products to the United States. Instead, Brazilian exports to the U.S. of special quality semifinished products declined between 1991 and 1992.²¹¹

Petitioners' further argument that the Commission's decision in the Lead and Bismuth investigations would result in a shifting of production by Brazilian producers from making free-machining lead and bismuth steels to non-lead and bismuth free-machining steels is also speculative. The Lead and Bismuth investigation did not involve semifinished products. Imports of free-machining hot-rolled bars from Brazil remained minuscule in 1992, even following the imposition of preliminary bond requirements in September 1992 in the Lead and Bismuth investigations. The theoretical possibility exists of shifting production from lead and bismuth free-machining bars to non-lead or other special quality bars. However, given the small amount of Brazilian subject imports of free-machining bars involved in this investigation, such a possibility does not constitute evidence that the threat of material injury is real and that actual injury is imminent.²¹²

Finally, we do not find that imports from Brazil of special quality products have and will continue to have a negative effect on the development and production efforts of the domestic industries. We note that the free-machining special quality semifinished and bar industries are relatively mature. Research and development expenses for all products remained stable at a relatively low percentage of net sales during the period of investigation.²¹³

²¹¹ The foregoing paragraph also applies to the other three domestic industries discussed below.

²¹² The foregoing paragraph also applies to the other three domestic industries discussed below.

²¹³ Report I-66, table 27.

While capital expenditures declined in 1992 in all four domestic industries, they remained at significant levels.²¹⁴ In addition, capital expenditures for environmental purposes increased during the period of investigation.²¹⁵ Statements by petitioners concerning the negative impact of Brazilian imports²¹⁶ must be examined in light of all of the evidence in this investigation indicating the lack of a sufficient impact on the domestic industry by the subject imports to warrant an affirmative finding of material injury by reason of the subject imports.²¹⁷

We find no other demonstrable trends or evidence in the record that would support a finding of threat of material injury by reason of the LTFV imports.

B. Other special quality semifinished products

Brazilian productive capacity for all special quality semifinished products increased by a small amount during 1990-91, and rose by a slightly larger but still small percentage between 1991 and 1992. As noted above with respect to free-machining semifinished, the percentage of Brazilian production of other special quality semifinished products exported to the United States and the percentage of Brazilian exports shipped to the United States was small throughout the period of investigation.²¹⁸

²¹⁴ Id. I-65, table 25.

²¹⁵ Id. I-65, table 26.

²¹⁶ Petitioners' Prehearing Br. at 129-131.

²¹⁷ The discussion in the foregoing paragraph applies to the three domestic industries addressed below.

²¹⁸ Report I-69.

Market penetration of subject imports corresponding to the like product did not increase rapidly between 1990 and 1992. There was only a slight and minuscule increase in import penetration of other special quality semifinished products.²¹⁹ This increase is not significant in light of the conditions of competition affecting this product and industry discussed above. No evidence presented by petitioners suggests that these small levels of imports are likely to increase to injurious levels in the immediate future.

We find no probability that imports of other special quality semifinished products from Brazil will enter the United States in the immediate future at prices that will have a suppressing or depressing effect on U.S. prices. This conclusion is based on our finding in the causation analysis above that the subject imports have no present effect on prices. No credible evidence has been presented which indicates that imports will have an adverse price effect in the immediate future.

The record does not suggest any substantial increase in inventories of the subject imports in the United States. Inventories of imports from Brazil of other special quality semifinished products declined to a minuscule amount in 1991 and 1992.²²⁰

Brazilian producers of special quality semifinished had unused capacity which increased somewhat during the period of investigation.²²¹ However, consumption of special quality semifinished products grew steadily in the Brazilian home market.²²² While Brazilian capacity utilization rates decreased

²¹⁹ Id. I-81, table 36. .

²²⁰ Id. I-74, table 31.

²²¹ Id. I-68 - I-69, table 28.

²²² Id. I-69, table 28.

from 1991 to 1992, the percentage of Brazilian production shipped to the United States decreased for special quality semifinished.²²³

We find no other demonstrable trends or evidence in the record that would support a finding of threat of material injury by reason of the LTFV imports with respect to the domestic industry of other special quality semifinished products.

C. Free-machining bars and cut-length rods

There was only a slight and minuscule increase in import penetration of free-machining bars and cut-length rods.²²⁴ This increase is not significant in light of the conditions of competition affecting this product and industry discussed above. No evidence presented by petitioners suggests that this minuscule increase in the level of imports is likely to increase to injurious levels in the immediate future. Moreover, the percentage of Brazilian special quality bar production shipped to the United States was small and declined throughout the period of investigation.²²⁵

We find no probability that imports of free-machining bars and cut-length rods from Brazil will enter the United States in the immediate future at prices that will have a suppressing or depressing effect on U.S. prices. This conclusion is based on our finding in the causation analysis above that the subject imports have no present effect on prices. No credible evidence has been presented which indicates that imports will have an adverse price effect in the immediate future.

²²³ Id.

²²⁴ Id. I-81, table 36.

²²⁵ Id. I-69, table 29.

The record does not suggest any substantial increase in inventories of the subject imports in the United States. Inventories of imports from Brazil of free-machining bars were not a factor throughout the period of investigation.²²⁶

Brazilian producers of special quality bar had unused capacity which increased somewhat during the period of investigation.²²⁷ This increase in capacity was due to one Brazilian producer that does not produce free-machining steels. As Brazilian capacity utilization rates increased from 1991 to 1992, the percentage of Brazilian production shipped to the United States decreased for special quality bar products.²²⁸

We find no other demonstrable trends or evidence in the record with respect to the domestic industry producing free-machining bars and cut-length rods that would support a threat of material injury by reason of the LTFV imports.

D. Other special quality bars and cut-length rods

Market penetration of subject imports corresponding to the like product did not "rapidly increase" between 1990 and 1992.²²⁹ Production capacity for special quality bars rose minimally during 1990-92.²³⁰ Questionnaire responses indicate that the source of the increase in production capacity was primarily from one Brazilian producer that is operating at close to full capacity.²³¹ We

²²⁶ Id. I-74, table 32.

²²⁷ Id. I-69, table 29.

²²⁸ Id.

²²⁹ Id. I-81, table 36.

²³⁰ Id. I-69, table 29.

²³¹ Villares Posthearing Br. at 14; Questionnaire responses.

do not find that the scale of Brazilian operations is sufficiently large that this increase in capacity is likely to result in a significant increase in imports of the merchandise to the United States. In addition, the percentage of Brazilian production of special quality bars exported to the United States was small and declined throughout the period of investigation.²³²

The record does not suggest any substantial increase in inventories of the subject imports in the United States. Inventories in the United States of imports from Brazil of other special quality bars rose slightly between 1991 and 1992, but to a level that represented only a minuscule percentage of apparent U.S. domestic consumption.²³³

We find no probability that imports of other special quality bars and cut-length rods from Brazil will enter the United States in the immediate future at prices that will have a suppressing or depressing effect on U.S. prices. This conclusion is based on our finding in the causation analysis above that the subject imports have no present effect on prices. No credible evidence has been presented that indicates that imports will have an adverse price effect in the immediate future.

Brazilian producers of special quality bar had unused capacity which increased somewhat during the period of investigation.²³⁴ As Brazilian capacity utilization rates increased from 1991 to 1992, however, the percentage of Brazilian production shipped to the United States decreased for special quality bar products.²³⁵

²³² Report I-69, table 29.

²³³ Id. I-74, table 32.

²³⁴ Id. I-69, table 29.

²³⁵ Id.

We find no other demonstrable trends or evidence in the record which would support a finding of threat of material injury by reason of the LTFV imports to the domestic industry producing other special quality bars and cut-length rods.

VI. CONCLUSION

For the foregoing reasons, we determine that the domestic industries producing free-machining semifinished products, other special quality carbon and alloy semifinished products, free-machining bars and cut-length rods, and other special quality carbon and alloy bars and cut-length rods, are neither materially injured nor threatened with material injury by reason of LTFV imports of these products from Brazil.

INFORMATION OBTAINED IN THE INVESTIGATION

INTRODUCTION

On January 11, 1993, the U.S. Department of Commerce (Commerce) published in the Federal Register its preliminary determination that imports of certain special quality carbon and alloy hot-rolled steel bars and semifinished products¹ from Brazil are being sold in the United States at less than fair value (LTFV) (58 F.R. 3533). Accordingly, effective January 11, 1993, the Commission instituted final antidumping investigation No. 731-TA-572 (Final) under the applicable provisions of the Tariff Act of 1930 to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise into the United States.

Notice of the institution of this investigation, and of the public hearing to be held in connection therewith, was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register on February 3, 1993 (58 F.R. 6976).² The hearing in this investigation was held in Washington, DC, on June 2, 1993.³ Commerce published its final LTFV determination on June 3, 1993 (58 F.R. 31496). The Commission voted on this investigation on July 2, 1993, and transmitted its determination to Commerce on July 9, 1993.

Background

This investigation results from a petition filed by Republic Engineered Steels, Inc., Massillon, OH, and The Timken Company, Canton, OH, on June 9,

¹ For purposes of this investigation, the subject imports are certain carbon and alloy (other than stainless, high speed, silico-manganese, and tool steel) hot-rolled steel bars, which have a uniform solid cross-section along their whole length and are in the shape of circles, segments of circles, ovals, rectangles, or other convex polygons. The subject bars are of special bar quality engineered steel that is described in Society of Automotive Engineers (SAE) standards J403, J404, J411, J1081, J1249, J1268, and modifications thereof. Also included are certain alloy ingots and semifinished products of carbon and alloy steel (other than stainless steel, high-speed steel, silico-manganese steel, tool steel, and high-nickel alloy steel), of circular or rectangular (including square) cross-section with a width measuring less than four times thickness, of special bar quality engineered steel. Excluded from the scope of the investigation are imports of semifinished products or hot-rolled bars which contain by weight 0.03 percent or more of lead or 0.05 percent or more of bismuth; semifinished or hot-rolled products of merchant quality steels (American Iron and Steel Institute (AISI) grades M 1000 through M 1044); hot-rolled bars and rods in irregularly wound coils; reinforcing bars and rods; wire; and flat-rolled products. See the tariff treatment section, below, for classifications and rates of duty.

² Copies of the Commission's institution notice and Commerce's final determination are presented in appendix A.

³ A list of witnesses who appeared at the hearing is presented in appendix B.

1992. The petition alleges that imports of certain special quality carbon and alloy semifinished and hot-rolled steel products from Brazil, covered by subheadings/statistical reporting numbers 7207.11.00, 7207.12.0010, 7207.19.0030, 7207.20.0025, 7207.20.0075, 7214.30.00, 7214.40.00, 7214.50.00, 7214.60.00, 7224.10.0075, 7224.90.0045, 7224.90.0065, and 7228.30.80 of the Harmonized Tariff Schedule of the United States (HTS), are being sold in the United States at LTFV, and that an industry in the United States is materially injured and threatened with material injury by reason of such imports.

Previous and Related Investigations

Certain special quality carbon and alloy steel products have been included in a number of investigations conducted by the Commission since 1921. A list of those investigations is presented in table 1.

General Steel Products Investigations

The 1982 countervailing duty and antidumping investigations resulted in negative preliminary determinations with respect to hot-rolled carbon steel bars; the petitions with respect to hot-rolled alloy steel bars were withdrawn and the investigations were terminated. In 1984, the Commission unanimously determined in a section 201 investigation that imports of carbon and alloy steel bar and wire rod products were not a substantial cause of serious injury, or threat thereof, to those domestic industries. The 1984 investigations of carbon steel wire rod resulted in an affirmative determination in the countervailing duty investigation concerning Spain, and affirmative determinations in the antidumping investigations involving Argentina, Brazil, Spain, and Trinidad and Tobago.⁴

Investigations of Special Quality Carbon Steel Products

In its recent investigations of certain hot-rolled lead and bismuth carbon steel products, the Commission unanimously determined that the domestic industry producing this product was materially injured by reason of imports of the subject hot-rolled lead and bismuth carbon steel products from Brazil, France, Germany, and the United Kingdom that had been found by the Department of Commerce to be subsidized by the Governments in these countries and to be sold in the United States at LTFV.⁵ As a result of these determinations, antidumping and countervailing duties of the amounts shown in the following tabulation (in percent) were imposed.

⁴ In addition, Commerce conducted several countervailing duty investigations of countries that were not signatories to the General Agreement on Tariffs and Trade Code on Subsidies and Countervailing Duties from 1986 to 1988. These investigations resulted in affirmative countervailing duty determinations regarding carbon steel wire rod from Malaysia, New Zealand, Saudi Arabia, and Zimbabwe.

⁵ Certain Hot-Rolled Lead and Bismuth Carbon Steel Products from Brazil, France, Germany, and the United Kingdom, USITC Publication 2611, Mar. 1993.

Table 1
Special quality carbon and alloy steel products: Previous and related investigations since 1921

Item	Investigation number	Date of issue	Report No.
Steel billets and bars	N.A.	1921	C-7
Hot-rolled carbon steel wire rods:			
Belgium	AD-27	1963	TC 93
France	AD-30	1963	TC 99
Luxembourg	AD-28	1963	TC 94
West Germany	AD-29	1963	TC 95
Carbon steel bars and shapes:			
Canada	AD-39	1964	TC 135
Steel bars, reinforcing bars, and shapes:			
Australia	AD-62	1970	TC 314
Carbon steel wire rods and wire	TEA-W-100	1971	TC 418
Carbon steel wire rods and round wire	TEA-W-181	1973	TC 566
Carbon steel bars and shapes:			
The United Kingdom	AD-INQ-8, 9	1978	USITC 855
Certain steel products (Hot-rolled carbon steel bar, and hot-rolled alloy steel bar):			
Belgium, Brazil, France, Italy, Luxembourg, United Kingdom, West Germany	701-TA-86-144 (P)	1982	USITC 1221
Carbon and certain alloy steel products (Hot-rolled carbon steel bars)	TA-201-51	1984	USITC 1553
Carbon steel wire rod:			
Brazil, Belgium, France, Venezuela	701-TA-148-150 (P)	1982	USITC 1230
Venezuela	731-TA-88 (P)		
Venezuela	731-TA-88 (F)	1983	USITC 1338
Brazil, Trinidad and Tobago	731-TA-113-114 (P)	1982	USITC 1316
Argentina, Mexico, Poland, Spain	731-TA-113-114 (F)	1983	USITC 1444
Argentina, Mexico, Poland, Spain	701-TA-209 (P)	1984	USITC 1476
Spain	731-TA-157-160 (P)		
Spain	701-TA-209 (F)	1984	USITC 1544
Poland	731-TA-159 (F)	1984	USITC 1574
Argentina, Spain	731-TA-157, 160 (F)	1984	USITC 1598
German Democratic Republic	731-TA-205 (P)	1984	USITC 1607
Poland, Portugal, Venezuela	701-TA-243-244 (P)	1985	USITC 1701
Poland, Portugal, Venezuela	731-TA-256-258 (P)		
Stainless and alloy tool steel	TA-201-5	1976	USITC 756
(Alloy tool steel only)	TA-203-2	1977	USITC 805
.	TA-203-3	1977	USITC 838
.	TA-203-5	1979	USITC 968
.	TA-201-48	1983	USITC 1377
.	TA-203-16	1987	USITC 1975
Steel Industry Annual Reports	332-209 and 332-289	Various	
Lead and bismuth carbon steel products:			
Brazil, France, Germany, United Kingdom	701-TA-314-317 (P)	1992	USITC 2512
.	731-TA-552-555 (P)		
Special quality hot-rolled and semifinished carbon and alloy steel products:			
Brazil	731-TA-572 (P)	1992	USITC 2537
Lead and bismuth carbon steel products:			
Brazil, France, Germany, United Kingdom	701-TA-314-317 (F)	1993	USITC 2611
.	731-TA-552-555 (F)		

Source: Various Commission reports.

<u>Country/company</u>	<u>Antidumping duties</u>	<u>Countervailing duties</u>
Brazil:		
ACESITA.....	148.12	19.19
Mannesmann.....	148.12	0.82
All others.....	148.12	0.82
France.....	75.08	23.14
Germany:		
Saarstahl A.G.....	85.05	17.28
Thyssen.....	85.05	None
United Kingdom:		
Allied Steel and Wire.....	25.82	20.33
Glynwed International.....	25.82	None
United Engineering Steels..	25.82	12.69

In the Lead and Bismuth bar and rod investigations, the Commission determined that the appropriate like product was free-machining bars and rods. Although the Commission found minor differences between lead and bismuth bars and rods and other types of free-machining steels, major differences were found to exist between free-machining and other special quality steels. These differences spanned physical characteristics, end uses, channels of distribution, producer and consumer perceptions, certain manufacturing processes, and prices.

THE PRODUCT

Description⁶

The special quality carbon and alloy steel products covered by this investigation are semifinished and hot-rolled products that may be subjected to direct hardening, carburizing, induction hardening, and/or nitriding; and are used in applications requiring critical levels of hardness and/or hardenability, strength, toughness, fatigue resistance, high-temperature creep and fracture resistance, wear resistance, machinability, and formability. Such products are commonly referred to as engineered or special bar quality (SBQ) steels. The subject imports are defined as follows:

Special quality carbon and certain alloy steel hot-rolled bars.--
Products of carbon and alloy steel (other than stainless steel, high-speed steel, silico-manganese steel, and tool steel) of special bar quality engineered steel, described in Society of Automotive Engineers (SAE) standards J403, J404, J411, J1081, J1249, J1268, and modifications thereof, not containing by weight 0.03 percent or more of lead or 0.05 percent or more of bismuth. These products have a uniform solid cross section along their length in shapes that include circles or segments of circles, ovals, rectangles (including squares), triangles, or other

⁶ See appendix C for a glossary of selected steel industry terminology. See the section of this report entitled "Like Product Considerations," for a discussion of how the Commission has defined the product for analysis in recent cases.

convex polygons. Such products are classified under the following subheadings of the HTS: 7214.30.00, 7214.40.00, 7214.50.00, 7214.60.00, and 7228.30.80. For the purposes of this investigation, such products include cut-length rod. These products do not include products of merchant quality steels (AISI grades M 1000 through M 1044); products in irregularly wound coils; flat-rolled products; wire; or reinforcing bars and rods.

Special quality carbon and certain alloy steel semifinished products.--- Products of carbon and alloy steel (other than stainless steel, high-speed steel, silico-manganese steel, tool steel, and high-nickel alloy steel) of special bar quality engineered steel, described in SAE standards J403, J404, J411, J1081, J1249, J1268, and modifications thereof, not containing by weight 0.03 percent or more of lead or 0.05 percent or more of bismuth, of circular or rectangular (including square) cross section. Such products are classified under the following HTS subheadings: 7207.11.00, 7207.12.00, 7207.19.00, 7207.20.00, 7224.10.00, and 7224.90.00. These products do not include semifinished products of merchant quality steels (AISI grades M 1000 through M 1044).

In contrast to merchant quality steel, special quality steel is typically produced to customer order and characterized by tighter surface and chemical tolerances. It is produced with minimal segregation and porosity, tighter grain size tolerances, and restrictive limits on incidental chemical element content. A tight range for chemical composition is prescribed for carbon, manganese, phosphorus, and sulfur. Standards on surface irregularities, including seams, are stricter than for merchant quality.

Free-Machining Steels⁷

Free-machining steels are a subset of the larger category of special quality steels,⁸ in which base grades of steel have been resulfurized and/or rephosphorized, and may have had additions of lead, bismuth, selenium, or tellurium.⁹ All steel, irrespective of grade or content, is machinable to

⁷ The Commission's recent decision in Certain Hot-Rolled Lead and Bismuth Carbon Steel Products from Brazil, France, Germany, and the United Kingdom, invs. Nos. 701-TA-314-317 (Final) and 731-TA-552-555 (Final), USITC Publication 2611, Mar. 1993, contains an extensive analysis and discussion concerning free-machining steels which is relevant to this investigation at pp. 10-28.

⁸ See appendix D for producer comments on manufacturing differences between free-machining and other special quality steels and appendix E for producer comments on differences in terms of physical characteristics and uses.

⁹ In the Commission's questionnaires in this investigation, "free-machining carbon and certain alloy steel products" were defined as follows:

Special quality carbon and certain alloy steel products containing by weight one or more of the following elements in the specified proportions:

- 0.03 percent or more of lead
- more than 0.05 percent of bismuth

(continued...)

some degree, and the machinability of the base steel is largely dictated by the engineering requirements of the end product.¹⁰ These requirements, which are properties of the base grade of the steel, include strength, ductility, and fatigue resistance.

Free-machining steels possess a significantly higher level of machinability compared with non-free-machining grades.¹¹ Non-free-machining steels may be subjected to machining operations to produce a variety of parts when the amount of metal to be removed by machining does not justify the extra cost of free-machining steels.¹² The effect of certain free-machining additives on steel properties may also preclude the use of these steels in certain applications for which optimum strength or toughness is a prime consideration.¹³

Free-machining bars can provide substantial savings by increasing the production rate in high-speed machining operations.¹⁴ Over a period of many years, steel producers have conducted intensive research programs to develop steels with improved machinability. This has been particularly true for free-machining steels that are utilized extensively for the production of a wide variety of parts on automatic screw machines operating at high production rates.¹⁵

Lead and bismuth free-machining steels possess a higher level of machinability than other free-machining steels. Lead and bismuth are insoluble and form inclusions in the steel, attaching themselves as tails to manganese sulfides. These inclusions aid chip formation and improve the lubricity or machinability of the steel. However, these steels pose problems in terms of manufacture and rolling, and their production is subject to environmental and health restrictions.

Merchant Quality vs. Special Quality¹⁶

Merchant quality steels are characterized by wide physical and chemical tolerances and are produced to grade only. Such steels are not produced to any specified silicon content, grain size, or other requirement that would influence the type of steel, and they may contain pronounced chemical

⁹ (...continued)

- 0.08 percent or more of sulfur
- more than 0.05 percent of selenium
- more than 0.01 percent of tellurium.

¹⁰ Debanshu Bhattacharya, "Machinability of Steel," Journal of Metals, Mar. 1987, p. 33.

¹¹ Lead and Bismuth, p. 11.

¹² Ibid., pp. 13-16.

¹³ Ibid., p. 17.

¹⁴ Ibid., p. 16.

¹⁵ Ibid., pp. 15-16.

¹⁶ The following discussion is based on American Iron and Steel Institute (AISI), Steel Products Manual: Alloy, Carbon and High Strength Low Alloy Steels: Semifinished for Forging; Hot Rolled Bars, Cold Finished Bars, Hot Rolled Deformed and Plain Concrete Reinforcing Bars, pp. 87-88.

segregation; internal porosity, surface seams, and other surface irregularities may also be present. Bars of this quality are usually rolled from unconditioned billets. Merchant quality steels are used for structural and similar applications involving moderate cold bending, moderate hot forming, punching, and welding, as used in the production of noncritical parts. This quality is not suitable for applications that involve forging, heat treatment, cold drawing, or other operations for which internal soundness or relative freedom from detrimental surface imperfections is of prime importance.

In contrast to merchant quality, special quality steels are typically produced to customer order and characterized by tighter surface and chemical tolerances. Such steels are produced with minimal segregation and porosity, tighter grain size tolerances, and restrictive limits on incidental chemical element content. A tight range for chemical composition is prescribed for carbon, manganese, phosphorus, and sulfur. Standards on surface irregularities, including seams, are stricter than for merchant quality. Special quality steel bars are rolled from billets that have been inspected and conditioned, as necessary, to minimize surface imperfections. Both merchant and special quality steel products can be produced from rimmed, capped, or killed steels.¹⁷

¹⁷ Rimmed steels are cast into ingots without deoxidation by silicon or aluminum. As solidification proceeds, oxygen and carbon dissolved in the molten metal continue to combine, producing a characteristic effervescent action in the ingot during solidification. Chemical composition and mechanical properties vary widely throughout rimmed steel ingots, with the region near the surface being lower in carbon, sulfur, and phosphorus than the average composition of the ingot. Capped steels are somewhat similar to rimmed steels, except that the rimming action is stopped at a specified point during the solidification process. A capped steel ingot has the low-carbon rim typical of a rimmed steel ingot, but the uniformity of composition and mechanical properties in the center that might be expected from a killed steel ingot. Killed steels are produced by adding deoxidizing elements such as silicon and aluminum to the ladle before pouring. Chemical composition and mechanical properties of killed steels are relatively uniform throughout the ingot.

Carbon¹⁸ vs. Alloy Steel

Both carbon and alloy special quality products are characterized by common manufacturing methods and uses. Both carbon and alloy special quality steels require similarly high levels of cleanliness, soundness, and surface quality. Both can be heat-treated and have equally rigorous internal chemistry requirements. A number of U.S. steel producers manufacture both carbon and alloy special quality semifinished products and hot-rolled bars and rods using the same workers, processes, and equipment.

Semifinished Products vs. Bars

Semifinished steel products have traditionally been considered to have been subjected to no more than primary hot-rolling and to be greater than 4 inches in cross-section. Hot-rolled bars are usually defined as finished steel products that have been subjected to additional hot-rolling subsequent to primary hot-rolling and that meet more stringent tolerance and surface quality requirements. During its preliminary investigation, Commerce addressed considerable attention to the classification of certain Brazilian special quality products that meet the traditional criteria for semifinished steel but also exhibit the tighter tolerances and more refined surface quality associated with hot-rolled bars.¹⁹

Commerce's decision in this matter was based on a related determination regarding whether the products under investigation should be considered more than one class or kind. In its August 12, 1992, decision memorandum, Commerce examined diverse criteria to resolve the class or kind issue. These criteria included general physical characteristics of the merchandise, ultimate end use of the merchandise, expectations of the ultimate purchaser, channels of trade in which the product is sold, and the manner in which the product is advertised and displayed. Based on this examination, and the determination that semifinished products and hot-rolled bars have different physical characteristics, ultimate uses, purchaser expectations, channels of trade, and

¹⁸ In this investigation, the term "carbon steel" refers to steel that does not contain the elements listed below in excess of the quantity, by weight, respectively indicated:

- 1.65 percent of manganese, or
- 0.25 percent of phosphorus, or
- 0.35 percent of sulphur, or
- 0.60 percent of silicon, or
- 0.60 percent of copper, or
- 0.30 percent of aluminum, or
- 0.20 percent of chromium, or
- 0.30 percent of cobalt, or
- 0.35 percent of lead, or
- 0.50 percent of nickel, or
- 0.30 percent of tungsten, or
- 0.10 percent of any other metallic element.

¹⁹ Imports of these products come into the United States under HTS provisions for semifinished products.

methods of advertising, Commerce concluded that the two products should be considered as two distinct classes or kinds of merchandise.

In its September 24, 1992, memorandum for the file, Commerce specifically addressed the issue of whether products produced by The Villares Group, which includes both Villares Industriais de Base SA (Vibasa) and Aços Anhanguera (Villares) SA, should be considered as semifinished products or hot-rolled bars. Based on the five criteria previously examined for the class or kind determination, Commerce concluded that products that have been hot-rolled only on a primary rolling mill but meet the physical description and other characteristics of hot-rolled bars are considered to be hot-rolled bars for purposes of this investigation. According to Commerce:

Although Villares' material is produced only on a primary rolling mill, the numerous passes (24-34) to which each ingot is subjected produces a product which has a smooth surface and meets AISI tolerances and ASTM specifications for finished bar. Thus, Villares' products have the physical characteristics of what we consider for the purposes of this investigation to be hot-rolled bar and rods,²⁰ and not semifinished products. Villares sells these products to end users or service centers, neither of whom (nor the customers of service centers) normally have the capability to further hot-roll those products and generally have facilities only to further work bar products. Thus, the channels of trade and ultimate use of Villares' products reflect those of hot-rolled bars and rods. Furthermore, as it is known that all of Villares' production meets ASTM and AISI specifications for bar, the customer expectations of Villares' products suggest that customers expect a product which meets tighter, relatively exacting tolerances, i.e., hot-rolled bars and rods.

This determination affects all products produced by The Villares Group and some limited production by Aço Minas Gerais SA (Açominas). Commerce's determination is reflected in Brazilian production and shipment data presented throughout this report. As a result, data on imports of subject product from Brazil and related market shares differ significantly from data collected in the Commission's preliminary investigation.

Petitioners assert that as a result of this determination, products exported by Açominas and classified as semifinished products are actually finished bars.²¹ Petitioners also argued this claim before Commerce, which considered the issue at Comment 2 of their final determination:

²⁰ Throughout its memoranda and Federal Register notices, Commerce refers to these products as "hot-rolled bars and rods." Due to the Commission's finding in its preliminary investigation that hot-rolled cut-length and coiled bars and hot-rolled cut-length rods comprise one like product, these products combined are referred to throughout this report as "hot-rolled bars."

²¹ Transcript of the public hearing (TR), testimony of Eugene L. Stewart, Stewart & Stewart, pp. 113-114.

Petitioners are incorrect in stating that the Department's verification report indicated that Açominas' exports to the U.S. were actually finished bars and not semifinished products. The report did state that the Department analyzed Açominas' ability to meet certain bar tolerances and that some of Açominas' exports met certain bar specifications. While some of Açominas' exports met certain bar specifications, based on information gathered at verification, it is unknown whether the exports met all bar specifications. Meeting certain bar specifications (i.e., bar tolerances) does not mean that the respondents' products or any of its exports to the U.S. should be classified as finished bars and rods.²²

Commerce further elaborated this point later in its determination:

The Department agrees with Açominas in its claim that it primarily produces semifinished products. We analyzed Açominas' ability to produce products conforming to certain bar specifications at verification. While some of the products were found to meet specific bar specifications, the Department was unable to examine Açominas' ability to meet all of the criteria. The Department did note in its verification report that Açominas did have the ability to produce semifinished steel products to specific bar tolerances and is supplying them to the market. However, we did not state that Açominas is "primarily" a bar producer or that the semifinished billets exported to the U.S. and under investigation should be included in the finished bars and rods category.²³

Respondents Açominas and Co-Steel Raritan also refute petitioners' classification of Açominas' product as finished bars. Açominas' billets sold to Co-Steel Raritan reportedly have surface roughness, spot defects, and seams in the material that are unacceptable for finished bars.²⁴ These billets reportedly regularly fail to meet the cross-section and length tolerances and straightness requirements of ASTM and SAE bar specifications.²⁵

Petitioners assert that although the Commission applied Commerce's determination on the classification of product as bar or semifinished, the Commission did not apply this definition to domestic shipments.²⁶ Definitions in the Commission's questionnaires were based on Commerce's preliminary determination, discussed above, and applied to all data collected by the Commission.

Petitioners also assert that various importers, ***, have misclassified imports of bars as semifinished products.²⁷ Commission staff have reexamined

²² 58 F.R. 31498.

²³ 58 F.R. 31499.

²⁴ Posthearing brief of Baker & McKenzie for Açominas, p. 2.

²⁵ Prehearing brief of Jeffrey W. Carr for Co-Steel Raritan, Affidavit of Robert L. Randall, Exhibit 1, p. 3.

²⁶ Prehearing brief of Stewart & Stewart for petitioners, p. 5.

²⁷ *Ibid.*, p. 30.

the questionnaire responses of these *** importers. Petitioners are incorrect in stating that ***.

* * * * *

Bars vs. Rods

Bars and rods are solid hot-rolled products produced by rolling heated billets into cut lengths or coils of a smaller predetermined cross-section. Although most bars and rods are rolled from strand-cast billets, some bars, including those subject to this investigation, are hot-rolled from billets which were processed from ingots or strand-cast blooms. In general practice, bars are rolled on a bar mill and rods are rolled on a rod mill; these two types of hot-rolling mills differ somewhat in their engineering requirements, such as the number of stands and their speed of operation. Chemistry, size tolerances, and end use typically define most differences between bars and rods.

With respect to chemistry and form differences, most carbon steel rod is produced in the 1000 and 1500 series carbon steels, and very little, if any, is produced in the 1100 or 1200 series,²⁸ which, along with the 1000 and 1500 series, are common bar grades.²⁹ While rods are typically produced in coils of one continuous length, bars may be produced in either coils or cut lengths. Most rods produced in the United States are designated "wire rods," intended for cold-drawing into wire for the production of wire products.³⁰ Most rods are also of circular cross-section. Bars may be further hot-worked (e.g., forged), or cold-finished (including cold-drawn) depending upon their end use. Bars are hot-rolled to a number of shapes, including rounds, squares, round-cornered squares, hexagons, square-edge and round-edge flats, and angles.³¹

Bar tolerances are tighter and more exacting than those for rods. The specifications written for the two products reflect these differences and are based mainly on different end uses. Hot-rolled wire rods generally are produced in nominal fractional diameters, and are not comparable to hot-rolled bars in accuracy of cross-section or surface finish because of the methods of manufacture and intended end use.³²

²⁸ In 1991, only 3.9 percent of U.S. coiled rod shipments reported by U.S. producers responding to the Commission's questionnaires in the preliminary investigation were in the 1100 and 1200 (free-machining) series. Data on coiled rods were not collected in the Commission's questionnaires in the final investigation.

²⁹ American and Iron Steel Institute (AISI), Steel Products Manual: Wire and Rods, Carbon Steel, Mar. 1984.

³⁰ According to one estimate made by a steel industry executive, approximately 95 percent of the U.S. rod production is "wire rod," with another 3 to 4 percent designated for cold-heading applications and structural applications requiring large diameter wires welded at the intersection.

³¹ AISI, Steel Products Manual: Bars, pp. 91-94.

³² AISI, Steel Products Manual: Wire, p. 35.

Industry usage of size distinction is in transition, creating an overlap between the definitions of bar and rod. In general, forms that exceed 3/4 inch (19 millimeters (mm)) in diameter are "bars," those under 1/2 inch (12.7 mm) in diameter are "rods," and those between 1/2 and 3/4 inch may be either, depending upon the mill, the customer, and the end use. This overlap is reflected in the HTS, where both bars and rods may be between 14 mm (0.55 inch) and 19 mm (0.74 inch) in diameter.³³ Standardized nomenclature for tariff purposes, set largely at the international level, differs in many respects from industry usage. The HTS sets the minimum diameter for bars at 14 mm, even though U.S. steel industry specifications include sizes down to 7.94 mm (5/16 inch). In addition, the HTS sets no maximum diameter for bars. The AISI uses the following guidelines for bars: rounds may be up to 10 inches in diameter; squares may be up to 8 inches in cross-section; hexagons may be up to 4 inches in cross-section; and flats may be up to 1.5 inches thick and 6 inches wide.³⁴

Cut-Lengths vs. Coils

After steel is hot-rolled, it can be cut to convenient shipping lengths or coiled. Special quality coiled products up to approximately 2 inches in diameter are produced on a bar or rod mill equipped with reels to coil the final product. Special quality cut-length products are produced on a mill equipped with facilities to produce the cut lengths, such as shears, hot saws, or abrasive saws, as well as notch turnover hot beds to ensure product straightness off the rolling mill. Many U.S. mills produce both cut-length and coiled special quality steel bars on the same equipment using the same production workers. There is virtually no metallurgical difference between cut-length and coiled products. The choice between these two products is based on the purchaser's manufacturing equipment. Coiled products are generally not used for hot forging or direct machining operations. Both cut-length and coiled products are used by cold finishers, and service centers market both cut-length and coiled special quality bars.

³³ Under the predecessor Tariff Schedules of the United States (TSUS), bars and wire rods were separate products covered by different provisions. Steel bars were defined as having cross-sections in the shape of circles, ovals, triangles, rectangles, hexagons, or octagons. Imports were reported under separate categories based on configuration and whether or not they were cold-formed. Wire rods were defined as coiled hot-rolled products, approximately round in cross-section, and not under 0.20 inch nor over 0.74 inch in diameter; imports were reported under separate categories based on carbon content and further processing.

Under the HTS, hot-rolled bars and rods are classified together with a distinction between "hot-rolled bars and rods in irregularly wound coils" and "other bars and rods" (including hot-rolled bars and rods cut to length). A size distinction continues to be maintained, however, with a separate statistical reporting number for coiled product less than 14 mm (0.74 inch) in diameter.

³⁴ AISI, Steel Products Manual: Bars, pp. 91-94.

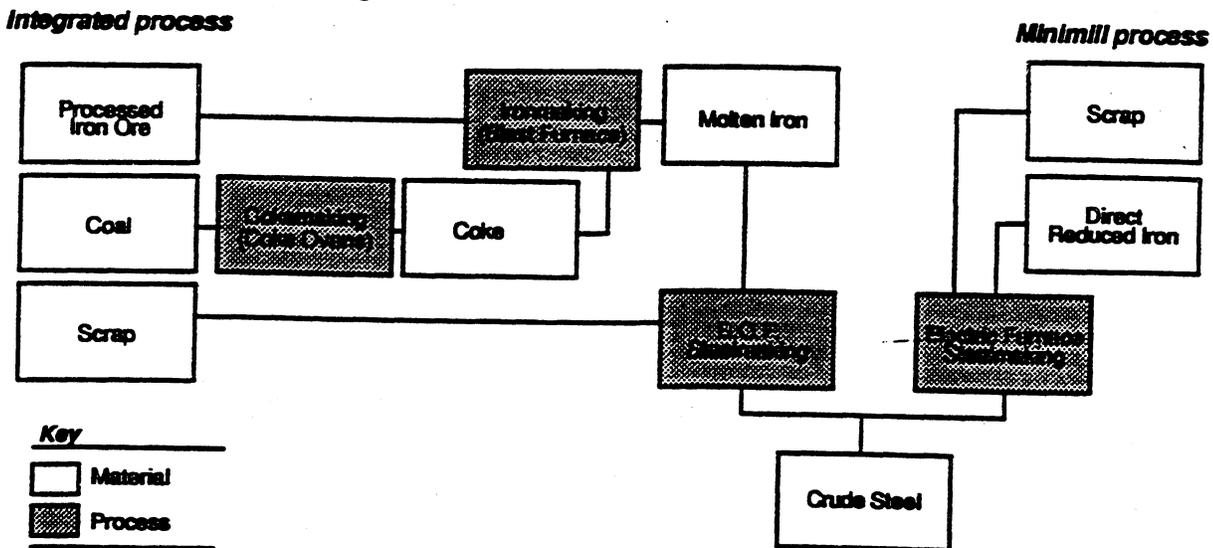
Manufacturing Process

Special quality carbon and alloy steel products require more sophisticated manufacturing tools, machinery, equipment, and skills than those required for merchant quality products, because the requirements for chemistry control, rigorous product analysis, surface quality, and critical engineered characteristics are much more restrictive. The manufacturing process leading to the production of certain special quality carbon and alloy steel products is described below and consists of three different stages: (1) melting, (2) casting, and (3) hot-rolling.

Melting Stage

Steel is produced by either an integrated or nonintegrated process (see figure 1). The nonintegrated process produces molten steel by melting scrap in an electric arc furnace (EAF). In contrast, the integrated process typically smelts iron ore and coke in a blast furnace to produce molten iron, which is subsequently poured into a steelmaking furnace, generally a basic oxygen furnace (BOF), together with scrap metal. The hot metal is processed into steel when oxygen is blown into the metal bath. Lime is added to serve as a fluxing agent; it combines with impurities to form a floating layer of slag, which is later removed. The increasing use of oxygen blowing and iron ore-based products, such as direct-reduced iron and iron carbide, in EAFs is beginning to blur the distinction between the integrated and nonintegrated processes.³⁵

Figure 1
Simplified steelmaking flowchart



Source: U.S. International Trade Commission, Steel Industry Annual Report, USITC Publication 2436, Sept. 1991, p. 2-2.

³⁵ U.S. International Trade Commission, Steel Industry Annual Report, USITC Publication 2436, Sept. 1991, p. 2-2.

Alloy steels are produced by additions of alloying agents (including chromium, nickel, and molybdenum) to liquid steel to impart specific properties to finished steel products. Molten steel is poured or tapped from the furnace into a ladle, an open-topped, refractory-lined vessel, typically with an off-center bottom opening equipped with a nozzle. Meanwhile, the primary steelmaking vessel (EAF or BOF) may be charged with new materials to begin another refining cycle.

Whether the integrated or nonintegrated process is used, it is increasingly common for molten steel to pass through a ladle metallurgy station, where its chemistry is refined to embody the steel with properties required for specific applications.³⁶ At the ladle metallurgy or secondary steelmaking station, the chemical content and temperature are adjusted for optimum casting.

Casting Stage

Once molten steel with the correct properties has been produced, it is cast into a form that can enter the rolling process (see figure 2 for a presentation of steel processes and products). In the ingot-based process, the ladle is moved by an overhead crane to a pouring platform where the steel is poured or "teemed" into ingot molds, either through the top of each mold or, in the preferred method for special quality steel production, through a pipe system that fills each mold from the bottom (bottom casting). As the steel begins to solidify, the mold is stripped from the ingot and the ingot is then transferred to a soaking pit, a specialized heating furnace that equalizes the temperature within the ingot. Following removal from the soaking pit, the ingots are hot-rolled on a primary breakdown mill to bloom or billet sizes and then transferred to a bar or rod mill for hot-rolling.

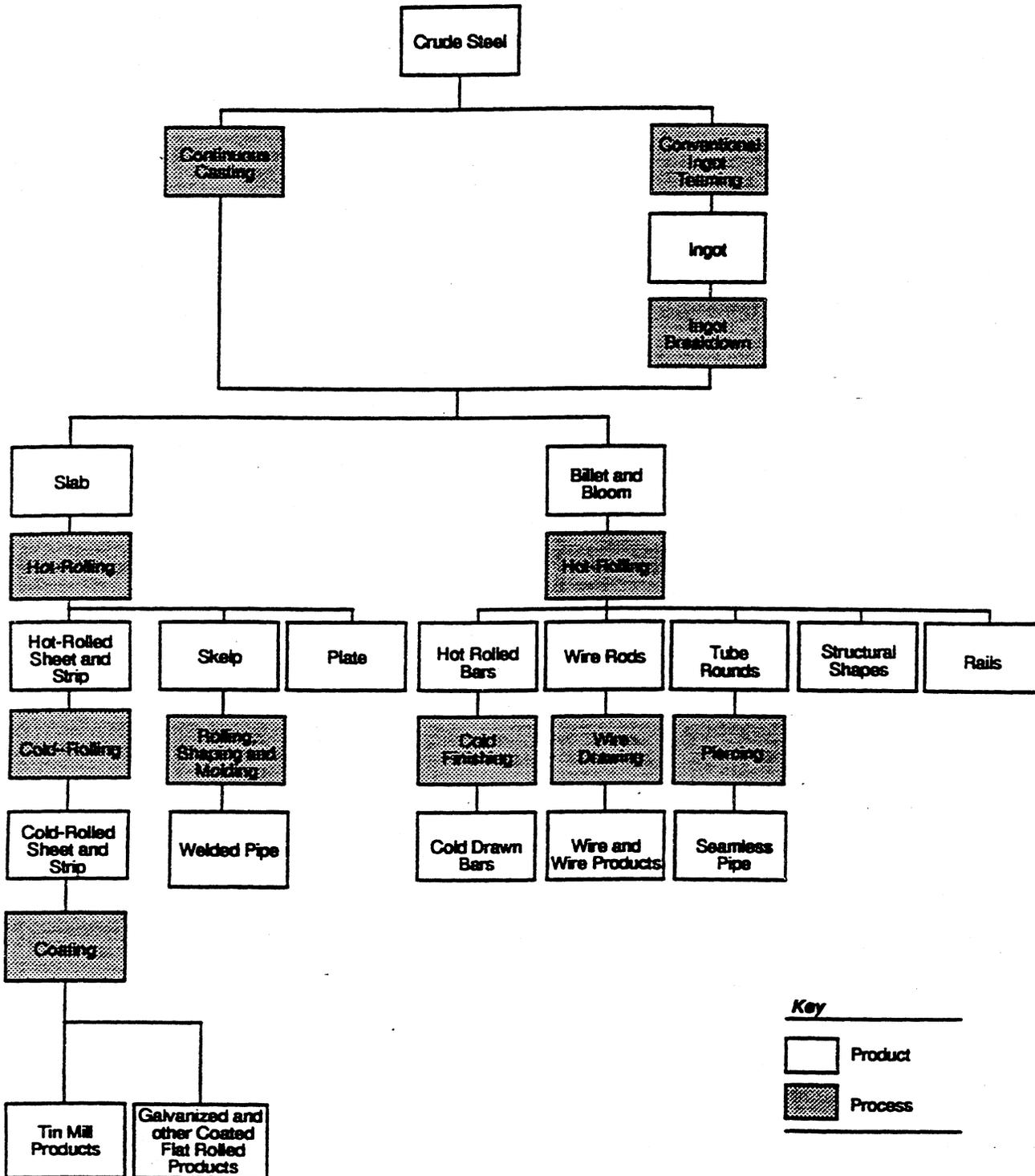
In the strand (or "continuous") casting method, the ladle is transferred from the ladle metallurgy station to the caster. The molten steel is poured at a controlled rate into a tundish, which in turn controls the rate of flow into the strand caster. The tundish may have a special design or electromagnetic stirring for the purpose of ensuring homogeneity of the steel. The strand caster is designed to produce blooms or billets in desired cross-sectional dimensions.³⁷ For certain special quality steels, billet casting has generally not been utilized because it did not yield quality comparable to ingot or bloom casting;³⁸ however, certain mills have been able to

³⁶ Ladle metallurgy stations differ in their sophistication and ability to refine the steel. Steels used to produce most merchant quality products and concrete reinforcing bar usually are not processed in a ladle metallurgy station.

³⁷ Although blooms are larger than billets, there is disagreement on the cross-sectional demarcation between the two shapes. Blooms were defined in the TSUS as measuring at least 36 square inches in cross-sectional dimension; billets were defined as measuring from at least 3 square inches up to 36 square inches. These distinctions were not carried over into the HTS.

³⁸ Transcript of the public conference (preliminary TR), testimony of George T. Matthews, General Manager, Metallurgical Quality Assurance-Steel, The Timken Company, p. 84.

Figure 2
Steel products and processes



Key

□ Product

▨ Process

Source: U.S. International Trade Commission, Steel Industry Annual Report, USITC Publication 2436, Sept. 1991, p. 2-2.

successfully cast special quality steel billets.³⁹ Although initial acceptance of continuously cast special quality product was slow, it has rapidly increased over the past 5 years. Some consumers now reportedly prefer continuously cast special quality products.⁴⁰

Hot-Rolling Stage

After being cast, ingots or blooms are transferred to a hot-rolling mill where they are reduced in cross-sectional dimension. There are additional losses in weight at each processing stage of the ingot or bloom associated with the production of special quality steels.

Blooms and billets are usually channeled through a reheat furnace prior to rolling. This step increases the malleability of the steel, reducing energy consumption and wear on the rolling mill. The semifinished steel shape is successively reduced in size as it passes through several stands. Most modern rolling mills are in-line, although cross-country mills⁴¹ are still in use. At the final stage, the bar may be channeled to a coiler, or it may be cooled in a water or oil bath and cut. Rods are rolled in a similar manner, although there are usually one or more additional stands in the rolling mill (or one or more additional passes made through a cross-country mill) to reduce the finished diameter. Most rod mills roll multiple strands; rods are almost always coiled.

Special quality steel products are usually subjected to some form of heat treatment to impart certain valued properties. This treatment consists of some form of annealing, normalizing, or quenching and tempering, or a combination of these processes. Annealing processes remove stresses, alter mechanical properties to "soften" the steel, refine grain structure, and produce a definite microstructure. Normalizing produces a more uniform structure and removes irregularities caused by high or low rolling or forging temperatures. Quenching hardens and tempering toughens the steel.⁴²

³⁹ USITC staff fieldwork, and USITC staff interview with industry executives, July 7, 1992.

⁴⁰ Preliminary TR, testimony of Ed Baker, Vice President, Ferrostaal Metals Corp., p. 142, and USITC staff fieldwork.

⁴¹ A cross-country mill is a multi-stand rolling mill in which mill stands are not placed continuously in line. The steel product being rolled generally changes direction in each roll pass and relies on a transfer mechanism to be aligned with successive mill stands. As additional reductions are imparted, the steel travels in a direction perpendicular to the primary rolling vectors. Unlike a continuous rolling mill, the piece being worked may pass more than once through each mill stand.

⁴² United States Steel (USS), "Chapter 51: Machinability of Carbon, Alloy, and Stainless Steels," The Making, Shaping and Treating of Steel, edited by Harold E. McGannon, 10th ed., 1985, pp. 1275-1294.

Uses

Special quality steel is preferable for applications requiring critical and stringent levels of elasticity, strength, toughness, fatigue resistance, high-temperature creep and fracture resistance, corrosion resistance, wear resistance, machinability, and/or formability. Applications are found throughout the automotive, aerospace, railway, oil, coal and gas extraction, power generation, defense, chemical, agricultural, construction, and general manufacturing industries. Cars, trucks, tractors, and off-highway vehicles account for more than half of the engineered steel market.⁴³ Current applications include crankshafts, connecting rods, suspension forgings, fasteners, bearings, aircraft undercarriage components, springs, high-strength pipeline fittings, gas containers, mining chains, and hand tools.⁴⁴

Cold-finishing companies, which include some steelmakers, perform value-added work on hot-rolled bars and rods; cold-finishing includes cold-drawing (improving mechanical properties, such as increasing tensile strength, yield strength, torsional strength, hardness, and wear resistance), straightening, or surface treatments, such as turning, grinding, and polishing. These companies in turn supply companies whose raw material specifications require tight tolerances and superior surface quality for steel bar products.

Questionnaire Responses

Through its questionnaires, the Commission sought data regarding the ultimate end-use customers of special quality carbon and alloy steel hot-rolled bars, whether U.S.-produced or imported from Brazil. U.S. producers accounting for 63.3 percent of total reported U.S. production in 1992 of special quality carbon and alloy steel hot-rolled bars provided information on total U.S. shipments of the subject products by end-use customer. The data are presented in table 2. U.S. importers of the subject product from Brazil reported that they were unable to identify end-use customers because sales were generally made to service centers, cold-finishers, or forgers (see section of the report entitled "Channels of Distribution").

Imported and Domestic Product Comparison

According to testimony by Republic Engineered Steels, Inc., a producer of special quality steel products, its customers view the domestic and Brazilian product as being interchangeable in terms of quality.⁴⁵ However, according to domestic users, there may be some differences between the domestic and imported products in the area of customer service. There are significantly longer lead times associated with purchasing from a foreign

⁴³ David J. Naylor, "The Future for Engineering Steels," Advanced Materials Technology International, London, Sterling Publications Ltd., 1989, p. 31, and petition, at p. 5.

⁴⁴ Robert A. Garvey, President, North Star Steel, "SBQ - A Major Opportunity for US Minimills," Metal Bulletin Monthly, June 1992, p. 31.

⁴⁵ Preliminary TR, testimony of Paul J. Guilfoyle, General Manager, Sales-Steel, The Timken Company, pp. 34, 39, 109.

Table 2

Special quality carbon and alloy steel hot-rolled bars: Shares of shipments of U.S.-produced product, by end uses and by products, 1992

* * * * *

source, and several references have been made to the Brazilians being "unreliable" suppliers.^{46,47} Petitioners disagree with the characterization of the Brazilians as unreliable suppliers.⁴⁸ According to one domestic purchaser of both domestic and Brazilian special quality steel products, the ingot casting method used by Brazilian producers is more cost effective in making larger cross-sections. This company purchases smaller cross-sections, more economically produced on a continuous caster, from domestic suppliers.⁴⁹

Substitute Products

The unique characteristics of special quality steel products, including temperature creep and fracture resistance, wear resistance, machinability, and formability, make them especially suited for forging into critical components or machining. According to petitioners, no other products compete in these markets.⁵⁰ Information from firms responding to the Commission's questionnaires indicates that although there are generally no economically practical substitutes for the subject special quality steel products, occasionally aluminum, graphite composites, or powdered metal may be used for certain applications.⁵¹

U.S. Tariff Treatment

Imports of special bar quality steel products subject to this investigation, and the column 1-general (most-favored-nation) rates of duty (in percent ad valorem) applicable to imports from Brazil, are provided for in the following HTS subheadings (statistical reporting numbers):

<u>Item</u>	<u>HTS provision</u>	<u>Rate of duty</u>
Semifinished products of iron or nonalloy steel....	7207.11.0000	4.2
	7207.12.0010	
	7207.19.0030	
	7207.20.0025	
	7207.20.0075	

⁴⁶ Ibid., p. 108 and USITC staff fieldwork.

⁴⁷ Evidence on the record also indicates that ***.

⁴⁸ Prehearing brief of Stewart & Stewart for petitioners, p. 6.

⁴⁹ ***.

⁵⁰ Preliminary TR, testimony of Mr. Guilfoyle, p. 42.

⁵¹ See preliminary questionnaire responses of ***.

<u>Item</u>	<u>HTS provision</u>	<u>Rate of duty</u>
Ingots and semifinished products of other alloy steel.....	7224.10.0075 7224.90.0045 7224.90.0065	5.1
Hot-rolled bars and rods, <u>other than</u> in irregularly wound coils, of nonalloy steel.....	7214.30.0000 7214.40.0010 7214.40.0030 7214.40.0050 7214.50.0010 7214.50.0030 7214.50.0050 7214.60.0010 7214.60.0030 7214.60.0050	4.7
Hot-rolled bars and rods, <u>other than</u> in irregularly wound coils, of other alloy steel.....	7228.30.8005 7228.30.8050	6.0

Voluntary Restraint Agreements

Between October 1, 1984, and March 31, 1992, imports of bars, rods, and bar-size shapes from Brazil, including the products subject to this investigation, were subject to quantitative limitations under the Voluntary Restraint Agreements (VRAs) negotiated with 19 foreign governments and the European Community (EC).⁵² The VRA program was, in part, an outgrowth of earlier trade measures during the period 1969-84, although these arrangements principally covered flat-rolled products, pipes and tubes, and wire rods. The immediate cause of the VRA program was a determination by the President, on September 18, 1984, that taking "escape clause" action was not in the national economic interest; this decision followed an investigation conducted by the Commission in which imports of certain steel products, not including bars, were found to be a substantial cause of serious injury, or threat thereof, to certain domestic industries (inv. No. TA-201-51).⁵³ The President directed the United States Trade Representative (USTR) to negotiate VRAs to cover a five-year period, October 1, 1984, through September 30, 1989, with countries

⁵² The restraint limits discussed in this section are more accurately defined as export limits because the countries under agreement controlled their shipments of exports in lieu of U.S. import quotas.

⁵³ Affirmative decisions were rendered in the case of semifinished steel, plates, sheets and strip, wire and wire products, and structural shapes and units. Negative determinations were rendered in the case of wire rods, railway type products, bars, and pipes and tubes.

whose exports to the United States had increased significantly in previous years. Although the structure of the arrangements varied from one country to another, each involved an agreement by the foreign government to limit exports of the pertinent steel products to the United States. In order to bring the agreements into effect, U.S. producers withdrew pending unfair trade petitions and the U.S. Government suspended antidumping and countervailing duties that were in effect on steel products covered by the VRAs. The trade measures were expected to return the share of imports in the U.S. market to a level of approximately 18.5 percent, excluding semifinished steel (subsequent Administration statements indicated such imports were limited to about 1.7 million tons per year). In this manner, export restraints were to allow the U.S. steel industry to restructure in response to the structural crisis, improve capacity utilization rates, and become competitive with foreign producers.

On July 25, 1989, the President announced a Steel Trade Liberalization Program, under which the VRAs were extended for 2-1/2 years, terminating on March 31, 1992. The President directed the USTR to negotiate VRAs at an overall restraint level of 18.4 percent (the 1988 VRA import penetration ceiling). The President authorized up to an additional 1-percent import penetration annually that would be available to countries that entered into bilateral consensus agreements, to provide incentives for countries to eliminate trade-distorting practices and to respond to concerns of steel consumers for adequate supplies of raw materials.⁵⁴

On December 12, 1989, the USTR announced that negotiations had been completed with the EC and 16 other countries,⁵⁵ including Brazil, that previously had VRAs. As a result of the negotiations, overall restraint levels were raised. Product coverage under the VRAs remained essentially unchanged, although the agreements were modified to include those specialty steel products (e.g., stainless and alloy tool steels) that were previously subject to relief under section 203 of the Trade Act of 1974.

The categories for hot-rolled bars and semifinished products subject to the VRAs were broader than for those products subject to this investigation. Moreover, the VRA categories, where product coverage is specified, are broader than the products described earlier in the HTS or do not cover products subject to the investigation. In all but one case, the category limits had not been binding for several years. Nonetheless, Brazil's restraint limits for and exports of hot-finished bars and semifinished steel for the relevant periods are shown in the following tabulation, based on export certificate data and final consultations conducted by Commerce's Office of Agreements Compliance (in metric tons):

⁵⁴ Negotiations for bilateral agreements were conducted in order to restrict trade-distorting practices, particularly subsidies to the steel industry. See USTR Press Release of Dec. 12, 1989.

⁵⁵ Portugal and Spain joined the EC prior to these negotiations. The VRA with South Africa was not renewed, as most steel imports were under embargo.

Item	1988 (12 months)		Jan.-Sept. 1989 (9 months)		Oct. 1989-Dec. 1990 (15 months) ¹	
	Exports to U.S.	Adjusted ceiling	Exports to U.S.	Adjusted ceiling	Exports to U.S.	Adjusted ceiling
Bars...	31,517	33,932	21,045	23,044	94,158	149,218
Semis..	559,023	559,023	444,055	476,280	960,965	1,010,966

¹ Final period data (Jan. 1991-Mar. 1992) are not available.

Based on the above data, the extent to which Brazil filled its VRA subcategory limits on hot-finished bars and semifinished steel is shown in the following tabulation (in percent):

Item	1988 (12 months)		Jan.-Sept. 1989 (9 months)		Oct. 1989-Dec. 1990 (15 months) ¹	
	Exports to U.S.	Adjusted ceiling	Exports to U.S.	Adjusted ceiling	Exports to U.S.	Adjusted ceiling
Bars...	92.88		91.33		63.10	
Semis..	100.00		93.23		95.05	

¹ Final period data (Jan. 1991-Mar. 1992) are not available.

Bilateral Consensus Agreements/Multilateral Consensus Agreement

When the VRAs were extended in 1989, the United States sought to address the causes of unfair trade and to eliminate subsidization and overcapacity in the steel industry. The bilateral agreements attempted to include commitments by countries to prohibit export and production subsidies specifically for steel products, to reduce tariffs and nontariff barriers to steel trade, and to incorporate a binding arbitration mechanism; the bilateral consensus agreements were to be multilateralized within the General Agreement on Tariffs and Trade (GATT) through incorporation in the Uruguay Round of multilateral GATT negotiations.⁵⁶ As envisioned, negotiations on the new Multilateral Steel Agreement (MSA) were to be completed by December 1990. On March 31, 1992, negotiations on a MSA were suspended without agreement, although considerable progress had been made. Multilateral discussions resumed December 9, 1992; discussions continue, however, no detailed time schedule for formal negotiations has been established.

Like Product Considerations

Petitioners argue that, on the basis of the factors the Commission considers in analyzing like-product issues (physical characteristics and uses, interchangeability among products, channels of distribution, producer and customer perceptions of the articles, the use of common production facilities and employees, and where appropriate, price), cut-length bars and rods and

⁵⁶ Press Release of USTR, Dec. 12, 1989, and accompanying Steel Trade Liberalization Program (Fact Sheet).

semifinished products comprise a single like product, but that free-machining steel and other special quality steel comprise separate like products.⁵⁷

Based on these same like-product factors, all respondents argue that the Commission should find separate like products of semifinished products and bars.⁵⁸ On the issue of whether these like-product categories should be subdivided into free-machining and other special quality steels, Co-Steel Raritan takes no position;⁵⁹ Açominas does not object to a division;⁶⁰ and Villares, ACESITA, and Mannesmann continue to state that there are not sufficient differences between the two categories to merit separate like products. However, given that the Commission exhaustively examined this issue in Lead and Bismuth and the record contains no new evidence to dispute this determination, and because they feel the issue is not outcome determinative, Villares, ACESITA and Mannesmann do not contest separate like products of free-machining and other special quality.⁶¹

In its preliminary decision, all of the Commissioners determined that semifinished products and hot-rolled products (including cut-length and coiled bars and cut-length rods) comprised different like products. Five of the Commissioners also determined that within each of these categories, there was only one like product, comprising all special quality carbon and certain alloy steel products. Commissioner Rohr found that free-machining steels were a separate like product. In March 1993, in the Lead and Bismuth final investigations, the Commission determined that there were major differences between free-machining steels and other types of special quality steels, and thus found a domestic industry that produced free-machining bars and rods.⁶²

THE NATURE AND EXTENT OF SALES AT LESS THAN FAIR VALUE

Commerce based its LTFV margins on best information available (BIA), as supplied in the petition. As BIA for Açominas, Commerce used the average margin alleged in the petition for semifinished products. For Villares, an average of several margins from sales occurring in the same month was used with respect to bars. The following tabulation provides the final average dumping margins found (in percent ad valorem):

⁵⁷ Prehearing brief of Stewart & Stewart for petitioners, pp. 60-61.

⁵⁸ Prehearing brief of Jeffrey W. Carr for Co-Steel Raritan, pp. 4-5; prehearing brief of Baker & McKenzie for Açominas, pp. 2,6; and prehearing brief of Willkie, Farr & Gallagher for Villares, ACESITA, and Mannesmann, pp. 6-8.

⁵⁹ Prehearing brief of Jeffrey W. Carr for Co-Steel Raritan, pp. 4-5.

⁶⁰ Prehearing brief of Baker & McKenzie for Açominas, pp. 2, 6.

⁶¹ Prehearing brief of Willkie, Farr & Gallagher for Villares, ACESITA, and Mannesmann, pp. 7-8.

⁶² Lead and Bismuth, pp. 27-28.

<u>Producer/manufacturer/exporter</u>	<u>Weighted-average margin percentage</u>
Semifinished products:	
Aço Minas Gerais S.A.....	19.67
All others.....	19.67
Finished bars and rods:	
Industrias Villares S.A. and its related companies.....	27.00
All others.....	27.00

THE U.S. MARKET

This report is structured to provide data and information on the two product categories of semifinished products and hot-rolled bars, and on three subproduct categories,⁶³ as follows:

I. Free-machining carbon and certain alloy steel products.--Nonalloy (carbon) and certain alloy steel products containing by weight one or more of the following elements in the specified proportions:

- 0.03 percent or more of lead
- more than 0.05 percent of bismuth
- 0.08 percent or more of sulfur
- more than 0.05 percent of selenium
- more than 0.01 percent of tellurium

Imports of free-machining steel products are presented in terms of subject imports (i.e., non-lead and bismuth free-machining products from Brazil) and nonsubject imports (i.e., lead and bismuth products from Brazil and all imports from other countries).

II. Other special quality carbon and certain alloy steel products.-- These products are the special quality steel products described below, other than the free-machining steel products described above. All imports of other special quality steel products from Brazil are subject to this investigation.

III. All special quality carbon and certain alloy steel products.-- Hot-rolled carbon and alloy steel products manufactured of a type of steel that is dependent upon chemical composition, quality, and customer's specification. Special quality products are used when the application, method of fabrication, or subsequent processing treatment requires quality characteristics not available in merchant quality products. Imports of all special quality steel products are presented in terms of subject imports (i.e., non-lead and bismuth special quality products from Brazil) and nonsubject imports (i.e., lead and bismuth products from Brazil and all imports from other countries).

⁶³ Summary data on these six categories are presented in appendix F.

U.S. Producers

The petition in this investigation identified seven firms as producing the subject special quality carbon and alloy steel products. The Commission sent questionnaires to each of the seven producers, as well as approximately 20 other producers of special quality carbon and alloy steel products. The Commission received responses from 16 firms, who are believed to have accounted for over 90 percent of U.S. production of special quality carbon and alloy steel products in 1992.⁶⁴ Questionnaires were received from an additional two producers who produced special quality carbon and alloy semifinished steel for use in products other than bar, primarily wire rod. These producers accounted for *** percent of reported semifinished production in 1992.

Table 3 presents the major producers of special quality carbon and alloy steel semifinished products and hot-rolled bars, the locations of their plants, their positions on the petition, and their shares of 1992 total production of special quality carbon and alloy steel semifinished products and bars. Firms in support of the petition accounted for *** percent of reported U.S. production of special quality carbon and certain alloy steel semifinished products in 1992, those opposed accounted for *** percent, and those that did not wish to take a position on the petition accounted for *** percent. Firms in support of the petition accounted for *** percent of U.S. production of special quality carbon and certain alloy steel hot-rolled bars in 1992, those opposed accounted for *** percent, and those that did not wish to take a position on the petition accounted for *** percent. The firms that produce special quality carbon and alloy steel products in the United States are described below.

Company Profiles

Special quality steel semifinished and hot-rolled bar producers

Atlantic Steel.--Atlantic Steel, which *** the petition, produces special quality carbon and alloy steel semifinished products and hot-rolled bars at its facility in Atlanta, GA, and accounted for *** and *** percent, respectively, of reported U.S. production of such products in 1992. Atlantic produces merchant bars, rods, and wire.

Auburn Steel.--Auburn Steel, which *** the petition, produces special quality carbon and alloy steel semifinished products and hot-rolled bars at its facility in Auburn, NY, and accounted for *** and *** percent, respectively, of reported U.S. production of such products in 1992. Auburn produces special quality products in its establishment producing rebar, merchant bars, and structurals. Auburn is ***.

Bethlehem Steel, Bar, Rod & Wire Division.--Bethlehem, which *** the petition, produced special quality carbon and alloy steel semifinished

⁶⁴ Questionnaires were not received in the final investigation from ***. Commission staff estimates that these mills account for less than 10 percent of U.S. production of special quality steels.

Table 3

Special quality carbon and alloy steel products: U.S. producers, location of producing facility, position on petition, and share of reported production of semifinished products and hot-rolled bars in 1992

Firm	Location	Position on petition ¹	Share of U.S. production Semifinished Bars	
			-----Percent-----	
Atlantic Steel.....	Atlanta, GA	***	***	***
Auburn Steel.....	Auburn, NY	***	***	***
Bethlehem Steel Bar, Rod & Wire Div..	Johnstown, PA Lackawanna, NY	***	***	***
Border Steel.....	El Paso, TX	***	(2)	(2)
Calumet Steel.....	Chicago Hts, IL	***	***	***
Chaparral Steel.....	Midlothian, TX	***	***	***
Charter Steel.....	Saukville, WI	***	***	(3)
Copperweld Steel Co....	Warren, OH	***	***	***
Co-Steel Raritan.....	Perth Amboy, NJ	0	***	(3)
Inland Steel Bar.....	E. Chicago, IN	***	***	***
Laclede Steel.....	Alton, IL	***	***	***
MacSteel (Quanex).....	Jackson, MI Ft. Smith, AR	***	***	***
North Star Steel ⁴	St. Paul, MN Monroe, MI Wilton, IA Beaumont, TX	***	***	***
Nucor.....	Norfolk, NE Darlington, SC Plymouth, UT	***	***	***
Republic Engineered Steels.....	Canton, OH	S	***	***
Sheffield Steel.....	Joliet, IL	***	***	***
Timken Co.....	Canton, OH	S	***	***
USS/Kobe Steel.....	Lorain, OH	***	***	***
Total.....			100.0	100.0

¹ S=supports, N=does not wish to take a position, and O=opposes.

² Border stopped production in 1989.

³ Does not produce.

⁴ North Star produces special quality semifinished products and hot-rolled bars at its Minnesota, Michigan, and Iowa facilities. The Texas facility produces special quality semifinished products for use in wire rods.

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

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

products at its facility in Johnstown, PA, and special quality carbon and alloy steel hot-rolled bar products at its facility in Lackawanna, NY. Bethlehem's Bar, Rod & Wire Division accounted for *** and *** percent, respectively, of reported U.S. production of special quality carbon and alloy steel semifinished products and hot-rolled bars in 1992. Bethlehem's operations producing semifinished and special quality carbon and alloy steel bar and rod products accounted for *** percent of Bethlehem's establishment net sales in 1992. Bethlehem was a petitioner in the recent Lead and Bismuth investigations.

On January 29, 1992, Bethlehem announced its decision to exit the bar, rod, and wire industry, offering its Bar, Rod, & Wire Division for sale. Unable to complete a transaction for the entire division, Bethlehem announced, on May 15, 1992, that it was initiating "an orderly phasing down" of the division, exiting the business "as quickly as possible."⁶⁵ That phasing down was completed in September 1992. As of April 1993, Bethlehem had terminated a previously announced letter of intent for the sale of the entire division to Ispat Mexicana S.A. de CV (a member of the Ispat Group, with international headquarters in Indonesia) due to the inability of the United Steelworkers and Ispat to come to an agreement. Bethlehem is currently marketing the assets of the division and considering proposals from qualified buyers to acquire all or portions of the division's facilities.⁶⁶

Border Steel.--Border Steel, which *** the petition, produced special quality carbon and alloy hot-rolled steel bars in its El Paso, TX, facility until 1989, when it exited the bar business. During the period of investigation, Border made some limited sales of such bars from inventory. Border is ***.

Calumet Steel.--Calumet Steel, which *** the petition, produces special quality carbon and alloy semifinished products and hot-rolled bars at its facility in Chicago Heights, IL, and accounted for *** and *** percent, respectively, of reported U.S. production of such products in 1992. Calumet's operations producing special quality steel products accounted for *** percent of its establishment's total net sales in 1992, with the remainder accounted for by rebar, merchant bars, and structurals.

Chaparral Steel.--Chaparral Steel, which *** the petition, produces special quality carbon and alloy semifinished products and hot-rolled bars at its facility in Midlothian, TX, and accounted for *** and *** percent, respectively, of reported U.S. production of such products in 1992. Chaparral produces special quality steel products in its establishment producing rebar, merchant bars, and structurals. Special quality products accounted for *** percent of Chaparral's total net sales in 1992. Chaparral is ***.

Copperweld Steel Co.--Copperweld, which *** the petition, produces special quality carbon and alloy steel semifinished products and hot-rolled bars at its facility in Warren, OH, and accounted for *** and *** percent, respectively, of reported U.S. production of those products in 1992. Copperweld is ***.

⁶⁵ Bethlehem Steel Corp., Press Release, May 15, 1992.

⁶⁶ Bethlehem Steel Corp., Press Release, Apr. 1, 1993.

Inland Steel, including Inland Steel Bar Co.--Inland, which *** the petition, produces special quality carbon and alloy steel semifinished products and hot-rolled bars at its facility in East Chicago, IN, and accounted for *** and *** percent, respectively, of reported U.S. production of such special quality products in 1992. Inland's operations producing special quality carbon and alloy steel products accounted for *** percent of its establishment's total net sales in 1992, with the remainder accounted for almost entirely by rod and flat-rolled products, with a portion going to structurals. Inland was a petitioner in the recent Lead and Bismuth investigations.

Laclede Steel.--Laclede Steel, which *** the petition, produces special quality carbon and alloy steel semifinished products and hot-rolled bars at its facility in Alton, IL, and accounted for *** and *** percent, respectively, of reported U.S. production of such products in 1992. Laclede's operations producing special quality steel products accounted for *** percent of its establishment's total net sales in 1992. Laclede produces special quality products in its establishment producing wire rod, hot-rolled strip and plate, chain, and pipe and tube. ***.

MacSteel.--MacSteel, which *** the petition, produces special quality carbon and alloy steel semifinished products and hot-rolled bars at its facilities in Jackson, MI, and Ft. Smith, AR, and accounted for *** and *** percent, respectively, of reported U.S. production of such products in 1992. MacSteel's operations producing special quality steel products accounted for *** percent of its establishment's total net sales in 1992. MacSteel is 100-percent owned by the Quanex Corp. of Houston, TX.

North Star Steel.--North Star Steel, which *** the petition, produces special quality carbon and alloy steel semifinished products and hot-rolled bars at its facilities in St. Paul, MN; Monroe, MI; and Wilton, IA; and produces special quality carbon and alloy steel semifinished products for production of wire rod at its facilities in Beaumont, TX. North Star accounted for *** and *** percent, respectively, of reported U.S. production of special quality semifinished products and bars in 1992. North Star's operations producing special quality steel products accounted for *** percent of its establishments'⁶⁷ total net sales in 1992, with the remainder accounted for by merchant bars, structurals, wire rod, and rebar. North Star is a ***.

Nucor.--Nucor, which *** the petition, produces special quality carbon and alloy steel semifinished products and hot-rolled bars at its Norfolk, NE; Darlington, SC; and Plymouth, UT, facilities, and accounted for *** and *** percent, respectively, of reported U.S. production of such products in 1992. Nucor's operations producing special quality products also produce wire rod, structurals, and flat-rolled products.

Republic Engineered Steels, Inc.--Republic, a petitioner in this investigation, produces special quality carbon and alloy steel semifinished and hot-rolled bars at its facility in Canton, OH, and accounted for *** and *** percent, respectively, of reported U.S. production of such special quality steel products in 1992. Republic's operations producing special quality carbon and alloy steel products accounted for *** percent of its

⁶⁷ Includes sales of Minnesota, Michigan, and Iowa facilities only.

establishment's total net sales in 1992, with the remainder accounted for by cold-finished, stainless steel, and tool steel products. Republic is not owned by any other company.

Sheffield Steel.--Sheffield, which *** the petition, produces special quality carbon and alloy steel hot-rolled bars at its facility in Joliet, IL, and accounted for *** percent of reported U.S. production of such products in 1992. Sheffield's special quality sales accounted for *** percent of its establishment's total net sales in 1992. Sheffield is ***.

The Timken Company.--Timken, a petitioner in this investigation, produces special quality carbon and alloy steel semifinished products and hot-rolled bars at its facility in Canton, OH, and accounted for *** and *** percent, respectively, of reported U.S. production of such products in 1992. Timken's operations producing special quality products accounted for *** percent of its establishment's total net sales in 1992, with the remainder accounted for by wire rod, specialty products, and pipe and tube. Timken is not owned by any other company.

USS/Kobe Steel Co.--USS/Kobe, which *** the petition, produces special quality carbon and alloy steel semifinished products and hot-rolled bars at its facility in Lorain, OH, and accounted for *** and *** percent, respectively, of reported U.S. production of such special quality steel products in 1992. USS/Kobe's operations producing special quality semifinished and hot-rolled bar products accounted for *** percent of its establishment's total net sales in 1992.

Other special quality steel semifinished producers

Questionnaires were also received from certain producers who manufacture semifinished products that fall under the scope of this investigation, but which are used to produce downstream products that are not subject to the investigation, primarily wire rod. Such producers include:

Charter Steel.--Charter Steel produces special quality carbon and alloy steel semifinished products for use in wire rod at its facility in Saukville, WI, and accounted for *** percent of reported U.S. production of semifinished products in 1992. Charter produces special quality steel products in its establishment producing wire rod and wire.

Co-Steel Raritan.--Co-Steel Raritan, which opposes the petition, produces special quality carbon and alloy steel semifinished products at its facility in Perth Amboy, NJ, and accounted for *** percent of reported U.S. production of semifinished products in 1992. Co-Steel Raritan's operations producing special quality carbon and alloy steel products accounted for *** percent of the firm's total net sales in 1992, with the remainder accounted for by wire rod and merchant quality carbon steel products. Co-Steel Raritan, a respondent in this investigation, is 100-percent owned by Co-Steel, Inc., of Whitby, Ontario, Canada.

Minimills

The traditional definition of a minimill distinguishes it from an integrated mill by focusing on method of steelmaking, product mix, geographical sales base, management philosophy, and cost structure. However, major changes in steelmaking technology, particularly trends toward decreasing the minimum efficient scale of production and the convergence of integrated and nonintegrated production processes, have blurred the distinction between integrated mills and minimills.⁶⁸ These changes have included the installation of EAF and continuous casting facilities by integrated mills, increases in average production capacity and geographic marketing area of minimills, and minimills' expansion of their product lines into more technologically demanding products, such as structurals and flat-rolled products, special quality steels, and wire rods.⁶⁹

Size of the Domestic Industry

Both petitioners and respondents Acominas and Co-Steel Raritan assert that the true size of the domestic industry differs significantly from the industry described above. Petitioners argue that purchasers of special quality steel bars view the industry as having three levels or classes of producers⁷⁰ and that only so-called Class 1 producers produce the like product, as defined by petitioners.⁷¹ Petitioners assert that only so-called Class 1 producers utilize certain features⁷² necessary to make special quality

⁶⁸ For further discussion of the blurring of the distinction between minimills and traditional mills, see, USITC, Steel Industry Annual Report On Competitive Conditions in the Steel Industry and Industry Efforts to Adjust and Modernize, USITC Publication 2436, Sept. 1991, pp. 3-38, 3-39.

⁶⁹ In Lead and Bismuth, the Commission declined to assess the condition of the free-machining steel producing industry by contrasting larger, allegedly less efficient, integrated producers with so-called minimills that allegedly have a much lower and more efficient cost structure. In their decision, the Commissioners stated that their evaluation and judgment must relate to the domestic industry as a whole, not its individual components. Lead and Bismuth, p. 33.

⁷⁰ Petitioners classify domestic producers as follows:

Class 1: Bethlehem Steel, Copperweld Steel, Inland Steel, MacSteel, North Star Steel, Raritan River Steel, Republic Engineered Steel, The Timken Company, and USS/Kobe;

Class 2: Chaparral Steel, Charter Steel, Green River Steel, Kentucky Electric Steel, Koppel Steel, Laclede Steel, and Atlantic Steel;

Class 3: Auburn Steel, Calumet Steel, Nucor, Border Steel, and Sheffield Steel.

⁷¹ Pre-hearing brief of Stewart & Stewart for petitioners, pp. 32-33.

⁷² These features are: a complex scrap management program, ladle refining, vacuum degassing, large continuous cast cross-section, ingot production capability, large blooms and billets, high reduction ratios for high quality, billet and bloom casting, extensive billet and bloom testing, extensive finishing and inspection capability, processes designed around strict compliance with industry SBQ standards, processes readily capable of meeting restricted SBQ standards, a wide variety of alloy and carbon steels, and a

(continued...)

steels. According to petitioners, so-called Class 2 and Class 3 producers, alternatively referred to by petitioners as "minimills," do not utilize these processes.⁷³

Petitioners assert that "Class 2" and "Class 3" mills are niche special quality producers,⁷⁴ who are incapable of consistently producing the entire size and grade ranges produced by the Brazilian respondents.⁷⁵ According to petitioners, "Class 2" and "Class 3" mills are involved only to an "extremely minor peripheral degree" in competing against the subject imports in the domestic special quality market.⁷⁶ Consequently, petitioners assert that the domestic industry should be redefined to include only "Class 1" producers of special quality steels and that the Commission's definition of the domestic industry is overly broad.⁷⁷

Petitioners acknowledge that there is no reference in Commerce's scope to these distinctions.⁷⁸ Petitioners acknowledge that there are no ASTM or other published industry standards defining classes of special quality steels.⁷⁹ Instead, petitioners assert that this classification is a

⁷² (...continued)

wide variety of qualities. Petitioners' pre-hearing brief, exhibit P-5.

A tabulation of the more quantifiable of these features, compiled by Commission staff, is presented in appendix G.

⁷³ TR, testimony of Mr. Stewart and Charles West, President and Executive Vice President of Steel, The Timken Company, p. 48.

⁷⁴ Post-hearing submission of Stewart & Stewart for petitioners, Responses to Questions Posed by the Commissioners and Commission Staff, p. 8.

⁷⁵ TR, testimony of Russell W. Maier, President and CEO, Republic Engineered Steels, pp. 25-26.

⁷⁶ Post-hearing submission of Stewart & Stewart for petitioners, Responses to Questions Posed by the Commissioners and Commission Staff, p. 6.

⁷⁷ TR, testimony of Mr. Stewart, p. 87.

Based on a classification criteria of product size, petitioners argue that shipments of mills that do not produce a full range of product over 3.13 inches should be excluded from the domestic industry. (Prehearing brief of Stewart & Stewart for petitioners, p. 34.) However, they make no argument that shipments of "Class 1" mills' product that is below this size should be similarly excluded. Data on shipments by size were not collected in the Commission's questionnaires. However, producers were asked to report separately for coiled and cut bars in the preliminary investigation. Given technological confines which limit coiled bar production to under 2-1/2 inches, coiled bar shipments can be taken as a conservative estimate of "Class 1" mills' shipments of bar under 3.13 inches.

According to the Commission's preliminary questionnaires, coiled bar shipments accounted for *** and *** percent, respectively, of total free-machining and other special quality bar shipments reported by "Class 1" mills. Total reported shipments by "Class 1" mills in the final investigation were significantly higher, largely due to *** reporting of previously omitted captive consumption. Based on total U.S. shipment data from the final questionnaires, coiled bar shipments accounted for *** and *** percent, respectively, of total free-machining and other special quality bar shipments reported by "Class 1" mills.

⁷⁸ TR, testimony of Mr. Stewart, p. 90.

⁷⁹ Ibid., p. 90.

reflection of petitioners' investigation and represents a summation of knowledge that exists in the market place.⁸⁰

Counsel for respondents counter that petitioners' definition of so-called Class 1 mills is not used by purchasers of special quality bars.⁸¹ Respondents assert that various mills classified as "Class 2" and "Class 3," including Green River, Chaparral, Laclede, and Koppel, do compete with Brazilian producers.⁸² According to Norris Cylinder, at least one "Class 2" mill, Green River, is capable of supplying the full range of sizes required by Norris, including products with cross-sections in excess of 6 inches.⁸³ Respondents assert that the decrease in reduction ratio requirements⁸⁴ has broadened the field of mills able to supply purchasers' needs.⁸⁵ Lower cost structures have allowed these newer, continuous cast producers to offer lower prices, in one case ranging from 15 to 30 percent below prices of one domestic supplier, leading to a change in suppliers.⁸⁶ One purchaser has reportedly replaced most of its Brazilian purchases with a "Class 2" producer.⁸⁷ Respondent Co-Steel Raritan notes that it has been classified as a "Class 1" bar producer even though it produces no bar products.⁸⁸

Respondents Villares, ACESITA, and Mannesmann assert that technological advances and changes in specification have allowed numerous continuous cast mills to become newly approved suppliers.⁸⁹ Until recently, high reduction ratio requirements mandated that most special quality bar sizes could only be produced from ingots. However, technology advances in raw steelmaking and forging have allowed purchasers to reexamine their requirements.⁹⁰ As a result, continuous cast material has become more acceptable⁹¹ and allowed more special quality producers to qualify as suppliers.⁹² Several purchasers, including Caterpillar, ***, report that they have lowered their reduction ratio requirements.⁹³

Respondents also deny petitioners' assertion that imports from Brazil are limited to sizes over 3.13 inches. Invoices from ***, provided by respondents, indicate that bars under 3 inches did enter the United States

⁸⁰ Ibid., p. 93.

⁸¹ TR, testimony of Glen Sulpizio, Principal Buyer, Eaton Corp., pp. 166, 182.

⁸² TR, testimony of Mr. Baker, p. 172.

⁸³ TR, testimony of Len Luscomb, Buyer, Norris Cylinder Co., p. 161.

⁸⁴ Reduction ratio is the change in surface area between the semifinished product and the finished bar.

⁸⁵ TR, testimony of Mr. Sulpizio, pp. 162-165.

⁸⁶ Ibid., p. 165.

⁸⁷ Ibid., p. 166.

⁸⁸ TR, testimony of Ed M. Calanog, President, Co-Steel Raritan, p. 120.

⁸⁹ Prehearing brief of Willkie, Farr & Gallagher for Villares, ACESITA, and Mannesmann, p. 25.

⁹⁰ Prehearing brief of Willkie, Farr & Gallagher for Villares, ACESITA, and Mannesmann, p. 26.

⁹¹ Ibid., p. 27.

⁹² Ibid., p. 28.

⁹³ Prehearing brief of Powell, Goldstein, Frazier & Murphy for Caterpillar, p. 3; and ***.

during the period of investigation.⁹⁴ Commission staff notes that based on these invoices alone, it appears as if bars under 3 inches accounted for a relatively small portion of total imports from Brazil.

Counsel for respondents Co-Steel Raritan and Açominas assert that the Commission has substantially undercounted the number of domestic producers of special quality semifinished products.⁹⁵ According to respondents, the broad scope definition of special quality implies the inclusion of semifinished used in various end products not included in the scope of the petition.⁹⁶ Respondents assert that the domestic industry should include producers of semifinished products for use in wire rod, tube rounds, rails, and some structurals, in addition to semifinished products destined for bar production.⁹⁷ According to respondents' calculations, U.S. production of other special quality semifinished products is over 16,000 tons.⁹⁸

The Commission staff has examined the respondents' calculation of the size of this particular domestic industry. Staff notes that producer questionnaires were sent in this investigation to all mills identified by respondents as wire rod producers. Supplementary questionnaires specifically requesting data on semifinished products meeting special quality definitions but used to make wire rod were also sent to the largest rod producers. Negative responses to the Commission's questionnaires were received from *** and several mills not listed by respondents. Positive responses were received from ***. No response was received from ***. Staff additionally notes that the calculation of semifinished billets destined for structurals production,⁹⁹ which is included in respondents' calculation, includes grades which are not special quality steels.

U.S. Importers

Information identifying importers of special quality carbon and alloy steel products was provided by counsel for the petitioner and was verified against files provided by the U.S. Customs Service. The Commission sent questionnaires to *** firms believed to be importers of the subject product from Brazil, which include all the known major importers of special quality carbon and alloy steel products. The *** responding importers¹⁰⁰ are believed to account for approximately *** percent of total imports of the subject

⁹⁴ Post-hearing brief, Willkie, Farr & Gallagher for Villares, ACESITA, and Mannesmann, Exhibit 1.

⁹⁵ Prehearing brief of Baker & McKenzie for Açominas, pp. 15-16; and prehearing brief of Jeffrey W. Carr for Co-Steel Raritan, p. 6.

⁹⁶ TR, testimony of Jeffrey W. Carr, p. 13.

⁹⁷ TR, testimony of Robert L. Randall, Manager, Product Metallurgy, p. 127.

⁹⁸ Prehearing brief of Jeffrey W. Carr for Co-Steel Raritan, Affidavit of Robert L. Randall, Exhibit 1, p. 5.

⁹⁹ Which include steel grades A36, A6, and A572. TR, testimony of Mr. Randall, p. 155.

¹⁰⁰ The Commission did not receive information in the final investigation from the following firms that have been identified as U.S. importers of the subject products from Brazil: ***. Information received from *** in the preliminary investigation is incorporated in this report.

special quality carbon and alloy steel products from Brazil. Major importers and their 1992 imports (in short tons) and share of reported imports (in percent) of the subject products from Brazil are presented below:

<u>Firm</u>	<u>Semifinished</u>		<u>Hot-rolled bars</u>	
	<u>Quantity</u> <u>(in tons)</u>	<u>Share of</u> <u>imports</u>	<u>Quantity</u> <u>(in tons)</u>	<u>Share of</u> <u>imports</u>
*	*	*	*	*

U.S. Producers' Imports

*** U.S. producers, *** and Co-Steel Raritan, reported purchasing subject special quality carbon and alloy steel products from U.S. importers. ***.

Co-Steel Raritan's Purchases

Purchases by Co-Steel Raritan (Raritan) of subject special quality semifinished products are substantial, accounting for *** and *** percent, respectively, of importers' shipments of subject free-machining and other special quality¹⁰¹ semifinished products in 1992. Raritan purchases such products from Ferrostaal, which imports them from Açominas, and ***, which imports them from ***. Raritan's purchases accounted for *** and *** percent, respectively, of Açominas' and ***'s exports of subject semifinished products to the United States in 1992.¹⁰²

Raritan asserts that purchases of subject semifinished products are due to ***.¹⁰³ Rimmed steels accounted for *** percent of Raritan's purchases from Açominas in 1992; the remainder reportedly consisted of low-residual steels.¹⁰⁴ Raritan asserts that these products are not available from domestic mills, many of which have shut down BOF ingot cast facilities in favor of more efficient continuous casters or EAFs.¹⁰⁵ As a result, Raritan has been forced to supply these needs with foreign steel; recently, Brazil has been a major source.

During the VRA period, Raritan's access to Brazilian billets was restricted, and short supply requests were made.¹⁰⁶ Short supply requests were

¹⁰¹ Other special quality semifinished products purchased by Co-Steel Raritan include the rimmed steel products discussed below, in "Respondents' data."

¹⁰² Raritan purchased other special quality semifinished products from Açominas and non-lead and bismuth free-machining semifinished from ***.

¹⁰³ ***.

¹⁰⁴ This represented a decline from previous years; rimmed steels accounted for *** and *** percent, respectively, of such purchases in 1990 and 1991. Posthearing brief of Jeffrey W. Carr for Co-Steel Raritan, Exhibit 1.

¹⁰⁵ Prehearing brief of Jeffrey W. Carr for Co-Steel Raritan, Affidavit of Ed M. Calanog, Exhibit 2, p. 2.

¹⁰⁶ Prehearing brief of Jeffrey W. Carr for Co-Steel Raritan, p. 11.

considered by Commerce in public proceedings that included notice and requests for comment in the Federal Register and written questionnaires to potential U.S. suppliers.¹⁰⁷ In considering these requests, Commerce and Raritan conducted an exhaustive search for U.S. sources of this product.¹⁰⁸ Based on the determination that no such domestic product existed, Commerce authorized Raritan to import additional materials from Brazil, approving Raritan's short supply petitions in the full amount requested for five consecutive quarters.¹⁰⁹

According to counsel for Raritan, Commerce did not consider Timken to be a potential supplier of these billets.¹¹⁰ Republic (formerly LTV), claimed it was capable of supplying all of Raritan's requirements; Republic reportedly later tried to alter Raritan's specifications, claiming they were overly stringent.¹¹¹ Republic was consequently found incapable of supplying Raritan with billets of the requested specifications.¹¹²

Raritan has identified four producers with BOFs and ingot teeming facilities, both necessary to make steel that meets Raritan's requirements: ***.¹¹³ According to Raritan, these mills are currently unable to meet its requirements.¹¹⁴

* * * * *

Raritan asserts that although petitioners produce a rimmed steel substitute, so does Raritan; if the substitute was suitable for these applications, Raritan would supply it.¹¹⁵ Raritan has reportedly discussed production of rimmed steel with petitioner Timken, and concluded it is not

¹⁰⁷ Posthearing brief of Jeffrey W. Carr for Co-Steel Raritan, Exhibit 4, p. 3.

¹⁰⁸ TR, testimony of Mr. Calanog, p. 123.

¹⁰⁹ Ibid., p. 124.

¹¹⁰ Posthearing brief of Jeffrey W. Carr for Co-Steel Raritan, Exhibit 5, p.1.

¹¹¹ Posthearing brief of Jeffrey W. Carr for Co-Steel Raritan, p. 11.

Raritan's response to LTV's claims stated:

Our residual limits reflect the metallurgical judgement of our customers and Raritan's engineers. Since Raritan produces electric furnace billets, it has developed these residual limits not only through theoretical technical considerations, but also through years of actual monitoring of quality performance in customers' processing. Elevated residual levels are manifestly inferior for difficult rod applications because of the negative effects on hardness, ductility, and/or heat treatment response. Posthearing brief of Jeffrey W. Carr for Co-Steel Raritan, Exhibit 5, Document No. 137-13, Letter from Charles Owen Verrill, Jr., Wiley, Rein & Fielding, on behalf of Raritan River Steel, to Mary Beth Double, Office of Agreements Compliance, Department of Commerce, June 22, 1988.

¹¹² Posthearing brief of Jeffrey W. Carr for Co-Steel Raritan, Exhibit 5, p. 1.

¹¹³ Posthearing brief of Jeffrey W. Carr for Co-Steel Raritan, Affidavit of Robert L. Randall, Exhibit 7, p. 3.

¹¹⁴ Ibid.

¹¹⁵ Ibid.

within Timken's production capabilities.¹¹⁶ Raritan reportedly purchased a test shipment of steel for a major tire cord customer, ***, from Timken, but found that the fatigue life of the product was inadequate due to high residuals.¹¹⁷

Respondent Açominas asserts that since the semifinished billets purchased by Raritan from Açominas are not available in the United States, there is no competition with the U.S. industry, no sales taken away from petitioners in the U.S. market, and, consequently, no material injury.¹¹⁸ Respondents assert that an affirmative determination, blocking special quality semifinished steel products from Brazil, will result in no benefit to the petitioners.¹¹⁹

* * * * *

Petitioners counter that both are capable of producing a functional equivalent to rimmed and low-residual steel.¹²⁰ According to petitioners, Raritan's product specifications appear overly restrictive in light of the destined applications¹²¹ and there are no technical reasons why substitute steels are not viable for Raritan's use. Petitioners assert that rimmed steel substitutes are acceptable for use in flat products and there are no reasons such substitutes could not be used in wire rod.¹²² Petitioners assert that neither firm has been requested to quote on the products Raritan currently purchases from Brazil.¹²³ Petitioners do not currently make the products in question but are certain that they, along with other U.S. producers, would be able to make the specified steel products if requested.¹²⁴ Petitioners assert that Raritan should be classified as a related party on the basis of its imports.¹²⁵

Apparent U.S. Consumption

The demand for special quality carbon and alloy steel products, as intermediate products, depends largely on the level of overall economic activity. In general, weak demand in the automotive and construction sectors during 1991 contributed to declines in apparent U.S. consumption of special quality carbon and alloy steel products.

¹¹⁶ TR, testimony of Mr. Randall, p. 143.

¹¹⁷ Posthearing brief of Jeffrey W. Carr for Co-Steel Raritan, Affidavit of Robert L. Randall, Exhibit 7, p. 2.

¹¹⁸ Prehearing brief of Baker & McKenzie for Açominas, p. 1.

¹¹⁹ Prehearing brief of Jeffrey W. Carr for Co-Steel Raritan, p. 15.

¹²⁰ Posthearing submission of Stewart & Stewart for petitioners, Responses to Questions Posed by Commissioners and Commission Staff, p. 35.

¹²¹ Ibid., Affidavit of Barry M. Glasgal and George T. Matthews, Exhibit 6, p. 1.

¹²² Ibid., p. 3.

¹²³ TR, testimony of Mr. Stewart, p. 106.

¹²⁴ Ibid.

¹²⁵ Prehearing brief of Stewart & Stewart for petitioners, p. 9.

Market Trends

An examination of economic conditions in the end-use markets for special quality steel shows that growth in these markets has slowed since 1988. Information received in this and other investigations indicates that the major markets for special quality steel products are transportation equipment, especially motor vehicles and equipment and aircraft and parts; industrial machinery and equipment, especially engines and turbines, construction and related machinery, and general industrial machinery; and electrical equipment.

The following tabulation displays end product shipments in these markets,¹²⁶ as measured by the percent change in U.S. shipments from the previous year, during 1989-91:¹²⁷

<u>Industry</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1988-91</u>
Transportation				
equipment.....	2.9	(¹)	1.4	4.4
Motor vehicles and				
equipment.....	1.4	(5.3)	(0.8)	(4.7)
Aircraft and parts....	4.6	13.4	11.8	32.7
Industrial machinery....	8.3	3.5	1.9	13.1
Engines and turbines..	2.2	(2.1)	3.0	2.9
Construction				
machinery.....	6.0	4.8	(10.3)	(0.4)
General industrial				
machinery.....	9.1	6.6	10.0	27.9
Electrical equipment....	4.7	(2.6)	28.7	31.2

¹ Less than 0.05 percent.

Motor vehicles and equipment and construction machinery suffered an overall drop in shipments from 1988 and 1991. Significantly, in the motor vehicles and equipment industry, the major consumer of special quality steel, shipments fell 5.3 percent between 1989 to 1990 and an additional 0.8 percent between 1990 and 1991. Certain major industries experienced significant growth between 1988 and 1991. Aircraft and parts, general industrial machinery, and the broader sector of electrical equipment all grew more than 25 percent during this period. The broader markets of transportation equipment and industrial machinery, as well as the engines and turbines industry, also experienced positive growth between 1988 and 1991.

Factual data gathered during this investigation on apparent U.S. consumption of free-machining carbon and alloy steel products and other special quality carbon and alloy products are presented in tables 4 and 5. The data are derived from responses to the Commission's questionnaires and are composed of the sum of U.S. shipments (domestic shipments, company transfers, and internal consumption) of U.S.-produced products, plus imports.

¹²⁶ Based on the closest SIC equivalent.

¹²⁷ U.S. Department of Commerce, Annual Survey of Manufactures and Aerospace Industries Association of America, Aerospace Facts and Figures 91-92, 1992.

Table 4

Special quality carbon and certain alloy steel semifinished products: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, by products, 1990-92

Item	1990	1991	1992
	<u>Quantity (short tons)</u>		
Free-machining:			
Producers' U.S. shipments..	961,977	748,911	982,986
Importers' U.S. shipments..	68,276	55,533	93,526
Apparent consumption.....	1,030,253	804,444	1,076,512
Other special quality:			
Producers' U.S. shipments..	5,883,299	5,472,149	5,767,659
Importers' U.S. shipments..	349,148	483,952	438,284
Apparent consumption.....	6,232,447	5,956,101	6,205,943
All special quality:			
Producers' U.S. shipments..	6,845,276	6,221,060	6,750,645
Importers' U.S. shipments..	417,424	539,485	531,810
Apparent consumption.....	7,262,700	6,760,545	7,282,455
	<u>Value (1,000 dollars)</u>		
Free-machining:			
Producers' U.S. shipments..	321,745	251,649	318,901
Importers' U.S. shipments..	29,803	21,980	34,654
Apparent consumption.....	351,548	273,629	353,555
Other special quality:			
Producers' U.S. shipments..	2,115,232	1,984,377	1,853,680
Importers' U.S. shipments..	110,843	137,621	128,620
Apparent consumption.....	2,226,075	2,121,998	1,982,300
All special quality:			
Producers' U.S. shipments..	2,436,977	2,236,026	2,172,581
Importers' U.S. shipments..	140,646	159,601	163,274
Apparent consumption.....	2,577,623	2,395,627	2,335,855
	<u>Share of the quantity of U.S. consumption (percent)</u>		
Free-machining:			
Producers' U.S. shipments..	93.4	93.1	91.3
Importers' U.S. shipments..	6.6	6.9	8.7
Other special quality:			
Producers' U.S. shipments..	94.4	91.9	92.9
Importers' U.S. shipments..	5.6	8.1	7.1
All special quality:			
Producers' U.S. shipments..	94.3	92.0	92.7
Importers' U.S. shipments..	5.7	8.0	7.3
	<u>Share of the value of U.S. consumption (percent)</u>		
Free-machining:			
Producers' U.S. shipments..	91.5	92.0	90.2
Importers' U.S. shipments..	8.5	8.0	9.8
Other special quality:			
Producers' U.S. shipments..	95.0	93.5	93.5
Importers' U.S. shipments..	5.0	6.5	6.5
All special quality:			
Producers' U.S. shipments..	94.5	93.3	93.0
Importers' U.S. shipments..	5.5	6.7	7.0

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

Table 5

Special quality carbon and certain alloy steel hot-rolled bars: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, by products, 1990-92

Item	1990	1991	1992
	<u>Quantity (short tons)</u>		
Free-machining:			
Producers' U.S. shipments..	776,432	601,006	767,130
Importers' U.S. shipments..	134,069	140,897	140,544
Apparent consumption.....	910,501	741,903	907,674
Other special quality:			
Producers' U.S. shipments..	4,244,728	3,995,727	4,115,784
Importers' U.S. shipments..	135,879	183,275	181,126
Apparent consumption.....	4,380,607	4,179,002	4,296,910
All special quality:			
Producers' U.S. shipments..	5,021,160	4,596,733	4,882,914
Importers' U.S. shipments..	269,948	324,172	321,670
Apparent consumption.....	5,291,108	4,920,905	5,204,584
	<u>Value (1,000 dollars)</u>		
Free-machining:			
Producers' U.S. shipments..	390,990	302,745	374,265
Importers' U.S. shipments..	62,747	67,489	66,898
Apparent consumption.....	453,737	370,234	441,163
Other special quality:			
Producers' U.S. shipments..	2,070,735	1,908,613	1,902,030
Importers' U.S. shipments..	65,236	84,657	84,540
Apparent consumption.....	2,135,971	1,993,270	1,986,570
All special quality:			
Producers' U.S. shipments..	2,461,725	2,211,358	2,276,295
Importers' U.S. shipments..	127,983	152,146	151,438
Apparent consumption.....	2,589,708	2,363,504	2,427,733
	<u>Share of the quantity of U.S. consumption (percent)</u>		
Free-machining:			
Producers' U.S. shipments..	85.3	81.0	84.5
Importers' U.S. shipments..	14.7	19.0	15.5
Other special quality:			
Producers' U.S. shipments..	96.9	95.6	95.8
Importers' U.S. shipments..	3.1	4.4	4.2
All special quality:			
Producers' U.S. shipments..	94.9	93.4	93.8
Importers' U.S. shipments..	5.1	6.6	6.2
	<u>Share of the value of U.S. consumption (percent)</u>		
Free-machining:			
Producers' U.S. shipments..	86.2	81.8	84.8
Importers' U.S. shipments..	13.8	18.2	15.2
Other special quality:			
Producers' U.S. shipments..	96.9	95.8	95.7
Importers' U.S. shipments..	3.1	4.2	4.3
All special quality:			
Producers' U.S. shipments..	95.1	93.6	93.8
Importers' U.S. shipments..	4.9	6.4	6.2

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

Trends in Apparent Consumption

Apparent consumption of free-machining carbon and alloy steel semifinished products rose by 4.5 percent in quantity during 1990-92, first decreasing from 1.0 million tons in 1990 to 804,444 tons in 1991 (21.9 percent), and then increasing by 33.8 percent to 1.1 million tons during 1992. Apparent consumption of other special quality semifinished products fell by 0.4 percent between 1990 and 1992, decreasing from 6.2 million tons in 1990 to 6.0 million tons in 1991 (4.4 percent), and then increasing by 4.2 percent to 6.2 million tons during 1992. Apparent consumption of free-machining carbon and alloy steel hot-rolled bars fell by 0.3 percent in quantity during 1990-92, decreasing from 910,501 tons in 1990 to 741,903 tons in 1991 (18.5 percent), and then increasing by 22.3 percent to 907,674 tons during 1992. Apparent consumption of other special quality carbon and alloy steel hot-rolled bars fell by 1.9 percent between 1990 and 1992, decreasing from 4.4 million tons in 1990 to 4.2 million tons in 1991 (4.6 percent), and then increasing by 2.8 percent to 4.3 million tons during 1992.

U.S. Producers' Share of Apparent Consumption

The U.S. producers' share of total apparent consumption of free-machining carbon and alloy steel semifinished products (based on quantity) decreased from 93.4 percent in 1990 to 93.1 percent in 1991 and to 91.3 percent in 1992, falling 2.1 percentage points over that period. U.S. producers' share of total apparent consumption of other special quality carbon and alloy steel semifinished products decreased from 94.4 percent in 1990 to 91.9 percent in 1991 and increased to 92.9 percent in 1992, falling 1.5 percentage points over the period. The U.S. producers' share of total apparent consumption of free-machining carbon and alloy steel hot-rolled bars decreased from 85.3 percent in 1990 to 81.0 percent in 1991 and increased to 84.5 percent in 1992, falling 0.8 percentage point over the period. U.S. producers' share of total apparent consumption of other special quality carbon and alloy steel hot-rolled bars decreased from 96.9 percent in 1990 to 95.6 percent in 1991 and increased to 95.8 percent in 1992, falling 1.1 percentage points over the period.

Channels of Distribution

Table 6 presents the shares of shipments of special quality carbon and alloy steel bars by channels of distribution for both U.S. producers and U.S. importers of bars from Brazil. Free-machining domestic steels are characterized by the large percentage that is distributed through cold-finishers, *** percent, as opposed to *** percent for other special quality steels. The bulk of domestic production of special quality semifinished products (***) is consumed internally to produce finished products, including both the cut-length bars subject to this investigation and finished products not subject to the investigation, such as coiled wire rods. In addition, limited amounts of special quality carbon and alloy steel semifinished products are sold by both U.S. producers and importers directly to processors for rerolling or forging applications.

Table 6

Special quality carbon and alloy steel hot-rolled bars: Shares of shipments of product, by channels of distribution, 1992

* * * * *

**CONSIDERATION OF ALLEGED MATERIAL INJURY TO AN
INDUSTRY IN THE UNITED STATES**

The information in this section of the report was compiled from responses to questionnaires of the U.S. International Trade Commission. The producers that provided questionnaire responses are believed to account for approximately 90 percent of U.S. shipments of total special quality carbon and alloy steel products in 1992. As mentioned previously, this report is structured to provide data and information on the two product categories of semifinished products and hot-rolled bars, and on three subproduct categories, as follows: (1) free-machining carbon and certain alloy steel products; (2) other special quality carbon and certain alloy steel products; and (3) all special quality carbon and certain alloy steel products.

U.S. Production, Capacity, and Capacity Utilization

Data on reported U.S. production, average-of-period capacity, and capacity utilization in connection with operations of special quality carbon and alloy steel products are presented in table 7. Production of free-machining carbon and alloy steel semifinished products decreased by 21.7 percent from 1990 to 1991, and then increased by 26.2 percent in 1992. Production of other special quality carbon and alloy steel semifinished products fell by 7.8 percent from 1990 to 1991, and then increased by 4.4 percent in 1992. Production of free-machining carbon and alloy steel hot-rolled bars fell by 22.6 percent between 1990 and 1991, and then increased by 31.1 percent in 1992. Production of other special quality carbon and alloy steel hot-rolled bars fell 7.1 percent from 1990 to 1991, and then increased by 4.9 percent in 1992.

Average U.S. capacity to produce free-machining carbon and alloy steel semifinished products decreased by 1.7 percent from 1990 to 1991, then increased by 3.6 percent in 1992. Average U.S. capacity to produce other special quality carbon and alloy steel semifinished products rose 4.0 percent during 1990-92. Average U.S. capacity to produce free-machining carbon and alloy steel hot-rolled bars fell by 2.6 percent from 1990 to 1992. Average U.S. capacity to produce other special quality carbon and alloy steel hot-rolled bars increased by 1.9 percent during 1990-92. Changes in capacity in all categories reflect changes in capacity allocation among products for many reporting companies over the period, not actual changes in equipment.

Utilization of capacity to produce free-machining carbon and alloy steel semifinished products decreased from 52.3 percent in 1990 to 41.6 percent in 1991, and then increased to 50.7 percent in 1992. Utilization of capacity to produce other special carbon and alloy steel semifinished products fell from 78.2 percent in 1990 to 70.0 percent in 1991, and then rose to 72.1 percent in 1992. Utilization of capacity to produce free-machining carbon and alloy steel hot-rolled bars declined from 60.7 percent in 1990 to 47.5 percent in 1991, and then increased to 63.2 percent in 1992. Utilization of capacity to produce other

Table 7
Special quality carbon and certain alloy steel products: U.S. capacity,
production, and capacity utilization, by products, 1990-92

Item	1990	1991	1992
<u>Average-of-period capacity (short tons)</u>			
Semifinished products:			
Free-machining.....	1,843,811	1,811,879	1,877,244
Other special quality.....	7,510,209	7,719,261	7,813,153
Total.....	9,354,020	9,531,140	9,690,397
Hot-rolled bars:			
Free-machining.....	1,290,499	1,275,423	1,257,006
Other special quality.....	5,604,510	5,659,320	5,710,539
Total.....	6,895,009	6,934,743	6,967,545
<u>Production (short tons)</u>			
Semifinished products:			
Free-machining.....	963,715	754,352	952,091
Other special quality.....	5,911,856	5,451,651	5,691,666
Total.....	6,875,571	6,206,003	6,643,757
Hot-rolled bars:			
Free-machining.....	782,992	606,143	794,750
Other special quality.....	4,288,564	3,982,174	4,178,510
Total.....	5,071,556	4,588,317	4,973,260
<u>Capacity utilization (percent)</u>			
Semifinished products:			
Free-machining.....	52.3	41.6	50.7
Other special quality.....	78.2	70.0	72.1
Average.....	73.1	64.6	67.9
Hot-rolled bars:			
Free-machining.....	60.7	47.5	63.2
Other special quality.....	76.5	70.4	73.2
Average.....	73.6	66.2	71.4

Note.--Capacity utilization is calculated using data of firms providing both capacity and production information.

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

special quality carbon and alloy steel hot-rolled bars fell from 76.5 percent in 1990 to 70.4 percent in 1991, and then rose to 73.2 percent in 1992.

U.S. Producers' U.S. Shipments

Data on U.S. producers' total shipments of special quality carbon and alloy steel products are presented in tables 8 and 9. Semifinished special quality steel products were generally consumed internally in the production of hot-rolled carbon and alloy steel bars or nonsubject finished products. U.S. shipments of free-machining carbon and alloy steel hot-rolled bars decreased by 22.6 percent from 1990 to 1991, and then increased by 27.6 percent from 1991 to 1992. U.S. shipments of other special quality carbon and alloy steel hot-rolled bars fell by 5.9 percent from 1990 to 1991, and then rose by 3.0 percent from 1991 to 1992.

U.S. Producers' Exports

Information on U.S. producers' exports of special quality carbon and alloy steel products is based on questionnaire responses of *** firms;¹²⁸ exports accounted for approximately *** percent of total shipments of U.S.-produced special quality carbon and alloy bars in 1992. There were no exports of free-machining semifinished products during the period of investigation. U.S. producers exported other special quality semifinished products only in 1991, when *** reported exports of ***. Exports of special quality bar products were also low.

U.S. Producers' Inventories

U.S. producers' inventories of free-machining carbon and alloy steel semifinished products remained relatively low during 1990-92, increasing from 1990 to 1991 and then decreasing significantly during 1992 (table 10). Inventories of other special quality carbon and alloy steel semifinished products were also relatively low, declining between 1990 and 1991, and falling even lower in 1992. U.S. producers' inventories of free-machining carbon and alloy steel hot-rolled bars increased significantly from 1990 to 1992, by 47.4 percent, although inventories as a percentage of shipments rose only *** percentage points over the period. Inventories of other special quality carbon and alloy steel hot-rolled bars increased 13.1 percent over the period, with inventories as a percentage of shipments rising *** percentage points.

U.S. Producers' Employment and Wages

The average number of production and related workers producing all special quality carbon and certain alloy steel semifinished products for the producers that provided employment data decreased from 4,597 in 1990 to 4,140 in 1991, or by 9.9 percent, and increased to 4,220 in 1992, or by 1.9 percent (table 11). The average hourly wage for production and related workers

Table 8
 Special quality carbon and certain alloy steel semifinished products:
 Shipments by U.S. producers, by products and by types, 1990-92

Item	1990	1991	1992
	Quantity (short tons)		
Free-machining:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	961,977	748,911	982,986
Exports.....	***	***	***
Total.....	***	***	***
Other special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	5,883,299	5,472,149	5,767,659
Exports.....	***	***	***
Total.....	***	***	***
All special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	6,845,276	6,221,060	6,750,645
Exports.....	***	***	***
Total.....	***	***	***
	Value (1,000 dollars)		
Free-machining:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	321,745	251,649	318,901
Exports.....	***	***	***
Total.....	***	***	***
Other special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	2,115,232	1,984,377	1,853,680
Exports.....	***	***	***
Total.....	***	***	***
All special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	2,436,977	2,236,026	2,172,581
Exports.....	***	***	***
Total.....	***	***	***

Table continued on next page.

Table 8--Continued
 Special quality carbon and certain alloy steel semifinished products:
 Shipments by U.S. producers, by products and by types, 1990-92

Item	1990	1991	1992
	Unit value (per short ton)		
Free-machining:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Average.....	\$334.46	\$336.02	\$324.42
Exports.....	***	***	***
Average.....	***	***	***
Other special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Average.....	359.53	362.63	321.39
Exports.....	***	***	***
Average.....	***	***	***
All special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Average.....	356.01	359.43	321.83
Exports.....	***	***	***
Average.....	***	***	***

Note: Company transfers include internal consumption.

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

Table 9
 Special quality carbon and certain alloy steel hot-rolled bars: Shipments by
 U.S. producers, by products and by types, 1990-92

Item	1990	1991	1992
	Quantity (short tons)		
Free-machining:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	776,432	601,006	767,130
Exports.....	***	***	***
Total.....	***	***	***
Other special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	4,244,728	3,995,727	4,115,784
Exports.....	***	***	***
Total.....	***	***	***
All special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	5,021,160	4,596,733	4,882,914
Exports.....	***	***	***
Total.....	***	***	***
	Value (1,000 dollars)		
Free-machining:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	390,990	302,745	374,265
Exports.....	***	***	***
Total.....	***	***	***
Other special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	2,070,735	1,908,613	1,902,030
Exports.....	***	***	***
Total.....	***	***	***
All special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Subtotal.....	2,461,725	2,211,358	2,276,295
Exports.....	***	***	***
Total.....	***	***	***

Table continued on next page.

Table 9--Continued
 Special quality carbon and certain alloy steel hot-rolled bars: Shipments by
 U.S. producers, by products and by types, 1990-92

Item	1990	1991	1992
	Unit value (per short ton)		
Free-machining:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Average.....	\$503.57	\$503.73	\$487.88
Exports.....	***	***	***
Average.....	***	***	***
Other special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Average.....	487.84	477.66	462.13
Exports.....	***	***	***
Average.....	***	***	***
All special quality:			
Company transfers.....	***	***	***
Domestic shipments.....	***	***	***
Average.....	490.27	481.07	466.18
Exports.....	***	***	***
Average.....	***	***	***

Note: Company transfers include internal consumption.

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

Table 10
Special quality carbon and certain alloy steel products: End-of-period
inventories of U.S. producers, by products, 1990-92

Item	1990	1991	1992
	<u>Quantity (short tons)</u>		
Semifinished products:			
Free-machining.....	***	***	***
Other special quality.....	***	***	***
Total.....	222,365	182,851	73,575
Hot-rolled bars:			
Free-machining.....	50,113	49,829	73,881
Other special quality.....	299,775	319,764	338,955
Total.....	349,888	369,593	412,836
	<u>Ratio to production (percent)</u>		
Semifinished products:			
Free-machining.....	***	***	***
Other special quality.....	***	***	***
Average.....	3.2	2.9	1.1
Hot-rolled bars:			
Free-machining.....	6.4	8.2	9.3
Other special quality.....	7.0	8.0	8.1
Average.....	6.9	8.1	8.3
	<u>Ratio to U.S. shipments (percent)</u>		
Semifinished products:			
Free-machining.....	***	***	***
Other special quality.....	***	***	***
Average.....	3.2	2.9	1.1
Hot-rolled bars:			
Free-machining.....	6.5	8.3	9.6
Other special quality.....	7.1	8.0	8.2
Average.....	7.0	8.0	8.5
	<u>Ratio to total shipments (percent)</u>		
Semifinished products:			
Free-machining.....	***	***	***
Other special quality.....	***	***	***
Average.....	***	***	***
Hot-rolled bars:			
Free-machining.....	***	***	***
Other special quality.....	***	***	***
Average.....	***	***	***

Note.--Ratios are calculated using data of firms supplying both numerator and denominator information.

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

Table 11

Average number of U.S. production and related workers producing special quality carbon and certain alloy steel products, hours worked, 1/ wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs, 2/ by products, 1990-92 3/

Item	1990	1991	1992
	Number of production and related workers (PRWs)		
Semifinished products:			
Free-machining.....	876	743	892
Other special quality.....	3,721	3,397	3,328
Total.....	4,597	4,140	4,220
Hot-rolled bars:			
Free-machining.....	1,178	1,055	1,059
Other special quality.....	4,060	3,810	3,652
Total.....	5,238	4,865	4,711
	Hours worked by PRWs (1,000 hours)		
Semifinished products:			
Free-machining.....	1,619	1,294	1,671
Other special quality.....	7,816	6,903	6,732
Total.....	9,435	8,197	8,403
Hot-rolled bars:			
Free-machining.....	2,385	1,926	2,051
Other special quality.....	8,568	7,739	7,497
Total.....	10,953	9,665	9,548
	Wages paid to PRWs (1,000 dollars)		
Semifinished products:			
Free-machining.....	25,340	21,686	28,042
Other special quality.....	127,526	118,822	130,335
Total.....	152,866	140,508	158,377
Hot-rolled bars:			
Free-machining.....	38,502	30,221	36,637
Other special quality.....	141,098	117,638	121,150
Total.....	179,600	147,859	157,787
	Total compensation paid to PRWs (1,000 dollars)		
Semifinished products:			
Free-machining.....	38,964	35,475	42,889
Other special quality.....	177,106	175,841	184,840
Total.....	216,070	211,316	227,729
Hot-rolled bars:			
Free-machining.....	57,676	48,322	55,681
Other special quality.....	197,008	175,150	173,194
Total.....	254,684	223,472	228,875

See footnotes at end of table.

Table 11--Continued

Average number of U.S. production and related workers producing special quality carbon and certain alloy steel products, hours worked, 1/ wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs, 2/ by products, 1990-92 3/

Item	1990	1991	1992
<u>Hourly wages paid to PRWs</u>			
Semifinished products:			
Free-machining.....	\$15.65	\$16.76	\$16.78
Other special quality.....	16.32	17.21	19.36
Average.....	16.20	17.14	18.85
Hot-rolled bars:			
Free-machining.....	16.14	15.69	17.86
Other special quality.....	16.47	15.20	16.16
Average.....	16.40	15.30	16.53
<u>Hourly total compensation paid to PRWs</u>			
Semifinished products:			
Free-machining.....	\$24.07	\$27.41	\$25.67
Other special quality.....	22.66	25.47	27.46
Average.....	22.90	25.78	27.10
Hot-rolled bars:			
Free-machining.....	24.18	25.09	27.15
Other special quality.....	22.99	22.63	23.10
Average.....	23.25	23.12	23.97
<u>Productivity (short tons per hour)</u>			
Semifinished products:			
Free-machining.....	0.488	0.472	0.466
Other special quality.....	.503	.496	.518
Average.....	.501	.493	.508
Hot-rolled bars:			
Free-machining.....	.308	.289	.354
Other special quality.....	.417	.421	.454
Average.....	.393	.394	.432
<u>Unit labor costs (per short ton)</u>			
Semifinished products:			
Free-machining.....	\$49.30	\$58.09	\$55.06
Other special quality.....	45.04	51.31	53.03
Average.....	45.75	52.33	53.40
Hot-rolled bars:			
Free-machining.....	78.49	86.90	76.61
Other special quality.....	55.12	53.78	50.92
Average.....	59.10	58.61	55.44

1/ Includes hours worked plus hours of paid leave time.

2/ On the basis of total compensation paid.

3/ Firms providing employment data accounted for 65 (semifinished) and 83 (bars) percent of reported total U.S. shipments (based on quantity) in 1992.

Note.--Ratios are calculated using data of firms supplying both numerator and denominator information.

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

producing all special quality carbon and alloy steel semifinished products increased from \$16.20 in 1990 to \$17.14 in 1991 and to \$18.85 in 1992.

The average number of production and related workers producing all special quality carbon and certain alloy steel hot-rolled bars for the producers that provided employment data decreased from 5,238 in 1990 to 4,865 in 1991, or by 7.1 percent, and decreased further to 4,711 in 1992, or by 3.2 percent. The average hourly wage for production and related workers producing all special quality carbon and alloy steel hot-rolled bars decreased from \$16.40 in 1990 to \$15.30 in 1991 and then rose to \$16.53 in 1992.

Most firms reported that production and related workers producing special quality carbon and alloy steel semifinished products and hot-rolled bars were represented by the United Steelworkers of America, and those workers accounted for *** percent of total reported production and related workers.¹²⁹ The following firms reported some form of labor reductions:¹³⁰

<u>Firm</u>	<u>Date(s) of reductions</u>	<u>No. of workers</u>	<u>Duration of reductions</u>	<u>Reason for reductions</u>
	*	*	*	*

Financial Experience of U.S. Producers

Thirteen firms,¹³¹ accounting for about *** percent of reported U.S. domestic shipments of the subject special quality carbon and certain alloy steel bars in 1992, provided income-and-loss data on their operations related to special quality carbon and certain alloy steel products and on their overall establishment operations.

Only *** producers---***---reported company transfers of free-machining and other special quality carbon and certain alloy steel hot-rolled bars, which are used mostly in the production of cold-finished bars. All other producers did not report company transfers because they did not treat those hot-rolled bars used for further processing as company transfers and could not compute the profitability of such transfers on a reliable basis. Hence, the Commission requested *** to provide income-and-loss data separately on its trade sales. The majority of ***'s net sales were company transfers, and therefore its data were not used. ***'s data are shown in appendix H. Thus, the financial data for hot-rolled bars presented in this section are for trade sales only.¹³²

¹²⁹ Production and related workers at *** are not represented by a union.

¹³⁰ ***.

¹³¹ ***.

¹³² The producer questionnaire data of Inland and Timken were verified in the recent Lead and Bismuth investigations, which covered the period from 1989 to Sept. 30, 1992. The financial, capacity, shipment, and production data were similar to the data in this investigation. The verification results and the difficulties in determining profitability for transfers were noted in the staff report of investigations Nos. 701-TA-314-317 (Final) and 731-TA-552-555 (Final), p. I-74.

Many of the companies produce semifinished products that are entirely consumed internally in the production of downstream products. The proportion of trade sales to total production of semifinished products is very small (6 percent based on shipment quantity). The companies without any trade sales could not compute the profitability of semifinished products on a reliable basis, and those companies with trade sales, except for ***, did not estimate profitability on the total production of semifinished products. Therefore, the financial data for semifinished products are presented for trade sales only.

Operations on Free-Machining Bars

Seven firms,¹³³ accounting for *** percent of reported domestic shipments of free-machining carbon and certain alloy steel hot-rolled bars in 1992, supplied income-and-loss data. These data are presented in table 12.

Net trade sales value fell by 22 percent from 1990 to 1991 and then increased by 22 percent from 1991 to 1992. During the same periods, net trade sales in short tons declined by 23 percent and rose by 25 percent. The industry reported aggregate operating losses in each year. The operating loss margins increased from 7.6 percent of total net sales in 1990 to 8.9 percent of total net sales in 1991, and then declined to 8.2 percent of total net sales in 1992. Average net sales value per short ton rose by 0.8 percent from 1990 to 1991 and then declined by 2.0 percent in 1992. During the same periods, the average cost of goods sold per short ton rose by 0.8 percent and declined by 0.8 percent, respectively.

Selected income-and-loss data and value per short ton, by firms, are presented in table 13. The trends of aggregate data represent the trends of three firms--***--because their sales accounted for *** percent of total net sales in 1992. ***.

* * * * *

Operations on Other Special Quality Bars

Twelve firms,¹³⁴ accounting for *** percent of reported domestic shipments of other special quality carbon and certain alloy steel hot-rolled bars in 1992, supplied income-and-loss data. These data are presented in table 14.

Net trade sales in value fell by 9 percent from 1990 to 1992. Net trade sales in short tons declined by 6 percent from 1990 to 1991 and then rose by 1 percent from 1991 to 1992. Aggregate operating income declined from \$95.5 million, or 6.4 percent of total net sales, in 1990, to \$19.7 million, or 1.4 percent of total net sales, in 1991, and then rose to \$59.7 million, or 4.4 percent of total net sales, in 1992. Average net sales value per short ton declined by 4 percent from 1990 to 1992. Average cost of goods sold per short

133 ***.

134 ***.

Table 12
Income-and-loss experience of U.S. producers on their operations producing free-machining carbon and certain alloy steel hot-rolled bars, fiscal years 1990-92 ^{1/}

Item	1990	1991	1992
	Quantity (short tons)		
Net sales.....	633,051	488,111	608,674
	Value (1,000 dollars)		
Net sales.....	322,302	250,373	306,184
Cost of goods sold.....	324,144	252,088	311,357
Gross (loss).....	(1,842)	(1,715)	(5,173)
Selling, general, and administrative expenses....	22,540	20,518	20,018
Operating (loss).....	(24,382)	(22,233)	(25,191)
Startup or shutdown expense..	***	***	***
Interest expense.....	***	***	***
Other income or (expense), net.....	***	***	***
Net (loss) before income taxes.....	(26,661)	(27,961)	(33,984)
Depreciation and amortization.....	8,692	8,472	13,366
Cash flow ^{2/}	(17,969)	(19,489)	(20,618)
	Value (per short ton)		
Net sales.....	\$509	\$513	\$503
Cost of goods sold.....	512	516	512
Gross (loss).....	(3)	(4)	(8)
Selling, general, and administrative expenses....	36	42	33
Operating (loss).....	(39)	(46)	(41)
	Ratio to net sales (percent)		
Cost of goods sold.....	100.6	100.7	101.7
Gross (loss).....	(0.6)	(0.7)	(1.7)
Selling, general, and administrative expenses....	7.0	8.2	6.5
Operating (loss).....	(7.6)	(8.9)	(8.2)
Net (loss) before income taxes.....	(8.3)	(11.2)	(11.1)
	Number of firms reporting		
Operating losses.....	4	4	4
Net losses.....	4	5	4
Data.....	7	7	7

^{1/} ***.

^{2/} Cash flow is defined as net income or loss plus depreciation and amortization.

Note.--Because of rounding, values per short ton may not add to the totals shown.

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

Table 13
Income-and-loss experience of U.S. producers on their operations producing free-machining carbon and certain alloy steel hot-rolled bars, by firms, fiscal years 1990-92

Item	1990		1991		1992	
	Value (1,000 dollars)					
Net sales:	*	*	*	*	*	*
Total.....	322,302		250,373		306,184	
Operating income or (loss):	*	*	*	*	*	*
Total.....	(24,382)		(22,233)		(25,191)	
Net income or (loss) before income taxes:	*	*	*	*	*	*
Total.....	(26,661)		(27,961)		(33,984)	
	Value (per short ton)					
Net sales:	*	*	*	*	*	*
Average.....	509		513		503	
Operating income or (loss):	*	*	*	*	*	*
Average.....	(39)		(46)		(41)	
	Ratio to net sales (percent)					
Operating income or (loss):	*	*	*	*	*	*
Average.....	(7.6)		(8.9)		(8.2)	
Net income or (loss) before income taxes:	*	*	*	*	*	*
Average.....	(8.3)		(11.2)		(11.1)	

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

Table 14
Income-and-loss experience of U.S. producers on their operations producing other special quality carbon and certain alloy steel hot-rolled bars, fiscal years 1990-92 ^{1/}

Item	1990	1991	1992
	Quantity (short tons)		
Net sales.....	3,078,131	2,884,639	2,919,762
	Value (1,000 dollars)		
Net sales.....	1,495,634	1,383,658	1,365,660
Cost of goods sold.....	1,320,773	1,280,816	1,228,695
Gross profit.....	174,861	102,842	136,965
Selling, general, and administrative expenses....	79,371	83,140	77,226
Operating income.....	95,490	19,702	59,739
Startup or shutdown expense..	***	***	***
Interest expense.....	***	***	***
Other expense, net.....	***	***	***
Net income or (loss) before income taxes.....	56,520	(28,644)	23,731
Depreciation and amortization.....	58,294	68,106	67,337
Cash flow ^{2/}	114,814	39,462	91,068
	Value (per short ton)		
Net sales.....	\$486	\$480	\$468
Cost of goods sold.....	429	444	421
Gross profit.....	57	36	47
Selling, general, and administrative expenses....	26	29	26
Operating income.....	31	7	20
	Ratio to net sales (percent)		
Cost of goods sold.....	88.3	92.6	90.0
Gross profit.....	11.7	7.4	10.0
Selling, general, and administrative expenses....	5.3	6.0	5.7
Operating income.....	6.4	1.4	4.4
Net income or (loss) before income taxes.....	3.8	(2.1)	1.7
	Number of firms reporting		
Operating losses.....	2	4	4
Net losses.....	2	5	5
Data.....	11	12	12

^{1/} ***.

^{2/} Cash flow is defined as net income or loss plus depreciation and amortization.

Note.--Because of rounding, values per short ton may not add to the totals shown.

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

ton rose by 3 percent from 1990 to 1991 and declined by 5 percent from 1991 to 1992.

Selected income-and-loss data and value per short ton, by firms, are presented in table 15. ***.

* * * * *

Operations on All Special Quality Bars

Twelve firms,¹³⁵ accounting for *** percent of reported domestic shipments of all special quality carbon and certain alloy steel hot-rolled bars in 1992, supplied income-and-loss data. These data represent the combination of data on operations on free-machining and other special quality hot-rolled bars discussed earlier and are presented in tables 16 and 17.

The weighted-average fixed and variable costs per short ton computed on the basis of the data provided by nine firms were about \$146 and \$328, respectively, in 1992.

Operations on Free-Machining Semifinished Products

Three firms,¹³⁶ accounting for *** percent of the quantity of reported domestic (noncaptive) shipments and *** percent of the quantity of total shipments (including company transfers and exports) of free-machining carbon and certain alloy steel semifinished products in 1992, supplied income-and-loss data. As mentioned before, most of the companies could not provide data on company transfers because they do not accumulate cost data at the semifinished stage of the product, and they could not reliably value such transfers at market price because they had no trade sales of free-machining carbon and certain alloy steel semifinished products. Hence, data presented in table 18 reflect trade sales only for this product.

Net trade sales in short tons fell by *** percent from 1990 to 1991 and then rose by *** percent from 1991 to 1992. During the same period, net trade sales value fell by *** percent and then rose by *** percent. The firms sustained an aggregate operating loss of ***, or *** percent of total net sales, in 1991, compared with an operating income of ***, or *** percent of total net sales, in 1990. Such losses amounted to ***, or *** percent of total net sales, in 1992. Average net sales value per short ton declined by about *** percent from 1990 to 1991 and then dropped by *** percent in 1992. During the same periods, average cost of goods sold per short ton rose by *** percent and then declined by *** percent.

Selected income-and-loss data and value per short ton, by firms, are presented in table 19. ***.

¹³⁵ ***.

¹³⁶ ***.

Table 15
Income-and-loss experience of U.S. producers on their operations producing other special quality carbon and certain alloy steel hot-rolled bars, by firms, fiscal years 1990-92

Item	1990		1991		1992	
	Value (1,000 dollars)					
Net sales:	*	*	*	*	*	*
Total.....	1,495,634		1,383,658		1,365,660	
Operating income or (loss):	*	*	*	*	*	*
Total.....	95,490		19,702		59,739	
Net income or (loss) before income taxes:	*	*	*	*	*	*
Total.....	56,520		(28,644)		23,731	
	Value (per short ton)					
Net sales:	*	*	*	*	*	*
Average.....	486		480		468	
Operating income or (loss):	*	*	*	*	*	*
Average.....	31		7		20	
	Ratio to net sales (percent)					
Operating income or (loss):	*	*	*	*	*	*
Average.....	6.4		1.4		4.4	
Net income or (loss) before income taxes:	*	*	*	*	*	*
Average.....	3.8		(2.1)		1.7	

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

Table 16

Income-and-loss experience of U.S. producers on their operations producing all special quality carbon and certain alloy steel hot-rolled bars, fiscal years 1990-92 ^{1/}

Item	1990	1991	1992
<u>Quantity (short tons)</u>			
Net sales.....	3,711,182	3,372,750	3,528,436
<u>Value (1,000 dollars)</u>			
Net sales.....	1,817,936	1,634,031	1,671,844
Cost of goods sold.....	1,644,917	1,532,904	1,540,052
Gross profit.....	173,019	101,127	131,792
Selling, general, and administrative expenses....	101,911	103,658	97,244
Operating income or (loss)...	71,108	(2,531)	34,548
Startup or shutdown expense..	***	***	***
Interest expense.....	***	***	***
Other expense, net.....	***	***	***
Net income or (loss) before income taxes.....	29,859	(56,605)	(10,253)
Depreciation and amortiza- tion.....	66,986	76,578	80,703
Cash flow ^{2/}	96,845	19,973	70,450
<u>Value (per short ton)</u>			
Net sales.....	\$490	\$484	\$474
Cost of goods sold.....	443	454	436
Gross profit.....	47	30	37
Selling, general, and administrative expenses....	27	31	28
Operating income or (loss)...	19	(1)	10
<u>Ratio to net sales (percent)</u>			
Cost of goods sold.....	90.5	93.8	92.1
Gross profit.....	9.5	6.2	7.9
Selling, general, and administrative expenses....	5.6	6.3	5.8
Operating income or (loss)...	3.9	(0.2)	2.1
Net income or (loss) before income taxes.....	1.6	(3.5)	(0.6)
<u>Number of firms reporting</u>			
Operating losses.....	3	4	5
Net losses.....	3	5	6
Data.....	11	12	12

^{1/} ***.

^{2/} Cash flow is defined as net income or loss plus depreciation and amortization.

Note.--Because of rounding, values per short ton may not add to the totals shown.

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

Table 17

Income-and-loss experience of U.S. producers on their operations producing all special quality carbon and certain alloy steel hot-rolled bars, by firms, fiscal years 1990-92

Item	1990		1991		1992	
	Value (1,000 dollars)					
Net sales:	*	*	*	*	*	*
Total.....	1,817,936		1,634,031		1,671,844	
Operating income or (loss):	*	*	*	*	*	*
Total.....	71,108		(2,531)		34,548	
Net income or (loss) before income taxes:	*	*	*	*	*	*
Total.....	29,859		(56,605)		(10,253)	
	Value (per short ton)					
Net sales:	*	*	*	*	*	*
Average.....	490		484		474	
Operating income or (loss):	*	*	*	*	*	*
Average.....	19		(1)		10	
	Ratio to net sales (percent)					
Operating income or (loss):	*	*	*	*	*	*
Average.....	3.9		(0.2)		2.1	
Net income or (loss) before income taxes:	*	*	*	*	*	*
Average.....	1.6		(3.5)		(0.6)	

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

Table 18

Income-and-loss experience of U.S. producers on their operations producing free-machining carbon and certain alloy steel semifinished products, fiscal years 1990-92

* * * * *

Table 19

Income-and-loss experience of U.S. producers on their operations producing free-machining carbon and certain alloy steel semifinished products, by firms, fiscal years 1990-92

* * * * *

Operations on Other Special Quality Semifinished Products

Four firms,¹³⁷ accounting for *** percent of the quantity of reported domestic (noncaptive) shipments and *** percent of the quantity of total shipments (including company transfers and exports) of other special quality carbon and certain alloy steel semifinished products in 1992, supplied income-and-loss data. As mentioned before, most of the companies could not provide data on company transfers because they do not accumulate cost data at the semifinished stage of the product, and they could not reliably value such transfers at market price because they had no trade sales of other special quality carbon and certain alloy steel semifinished products. Hence, data presented in table 20 reflect trade sales only for this product.

Table 20

Income-and-loss experience of U.S. producers on their operations producing other special quality carbon and certain alloy steel semifinished products, fiscal years 1990-92

* * * * *

Net trade sales in short tons and in dollar value fell by *** percent from 1990 to 1992. Aggregate operating losses increased from ***, or *** percent of net sales, in 1990, to *** million, or *** percent of net sales, in 1991, and then declined to *** million, or *** percent of net sales, in 1992. Average net sales value per short ton remained stable at *** during 1990-92. Average cost of goods sold per short ton rose by *** percent from 1990 to 1991 and then declined by *** percent from 1991 to 1992.

Selected income-and-loss data and value per short ton, by firms, are presented in table 21. ***.

Table 21

Income-and-loss experience of U.S. producers on their operations producing other special quality carbon and certain alloy steel semifinished products, by firms, fiscal years 1990-92

* * * * *

137 ***.

Operations on All Special Quality Semifinished Products

These data represent the combination of data on operations on free-machining and other special quality semifinished products discussed earlier and are presented in tables 22 and 23.

Table 22

Income-and-loss experience of U.S. producers on their operations producing all special quality carbon and certain alloy steel semifinished products, fiscal years 1990-92

* * * * *

Table 23

Income-and-loss experience of U.S. producers on their operations producing all special quality carbon and certain alloy steel semifinished products, by firms, fiscal years 1990-92

* * * * *

The weighted-average fixed and variable costs per short ton computed on the basis of the data provided by *** firms were about *** and ***, respectively, in 1992.

Investment in Productive Facilities

The value of property, plant, and equipment and total assets, along with the return on book value of fixed assets and the return on total assets, are presented in table 24.

Capital Expenditures

Capital expenditures reported by U.S. producers are shown in table 25. *** incurred *** capital expenditures for both free-machining and other special quality semifinished products in 1990, and for free-machining bars during 1990-92. *** incurred *** capital expenditures for other special quality bars during 1990-92.

Capital Expenditures and Expenses for Environmental Purposes

Capital expenditures and expenses included in operations for environmental purposes¹³⁸ by U.S. firms are presented in table 26.

¹³⁸ These data were collected at the request of the petitioners.

Table 24

Value of assets and return on assets of U.S. producers' operations producing subject special quality carbon and certain alloy steel products, by products, fiscal years 1990-92

Item	1990	1991	1992
	Value (1,000 dollars)		
All products:			
Fixed assets:			
Original cost.....	6,724,773	6,989,206	7,030,575
Book value.....	3,047,875	3,085,164	2,968,947
Total assets <u>1/</u>	4,789,569	4,610,915	4,909,896
Free-machining semifinished:			
Fixed assets:			
Original cost.....	***	***	***
Book value.....	***	***	***
Total assets <u>2/</u>	***	***	***
Other semifinished:			
Fixed assets:			
Original cost.....	***	***	***
Book value.....	***	***	***
Total assets <u>2/</u>	***	***	***
All semifinished:			
Fixed assets:			
Original cost.....	***	***	***
Book value.....	***	***	***
Total assets <u>2/</u>	***	***	***
Free-machining bars:			
Fixed assets:			
Original cost.....	377,570	382,213	437,391
Book value.....	165,017	161,237	212,050
Total assets <u>2/</u>	241,051	225,084	339,899
Other bars:			
Fixed assets:			
Original cost.....	1,005,834	1,128,860	1,162,623
Book value.....	411,503	461,443	493,109
Total assets <u>2/</u>	677,085	694,827	773,108
All bars:			
Fixed assets:			
Original cost.....	1,383,404	1,511,073	1,600,014
Book value.....	576,520	622,680	705,159
Total assets <u>2/</u>	918,136	919,911	1,113,007
	Return on book value of fixed assets (percent) <u>3/</u>		
All products:			
Operating return <u>4/</u>	7.4	(8.7)	(4.7)
Net return <u>5/</u>	2.6	(14.2)	(9.5)
Free-machining semifinished:			
Operating return <u>4/</u>	***	***	***
Net return <u>5/</u>	***	***	***
Other semifinished:			
Operating return <u>4/</u>	***	***	***
Net return <u>5/</u>	***	***	***
All semifinished:			
Operating return <u>4/</u>	***	***	***
Net return <u>5/</u>	***	***	***

See footnotes at end of table.

Table 24--Continued

Value of assets and return on assets of U.S. producers' operations producing subject special quality carbon and certain alloy steel products, by products, fiscal years 1990-92

Item	1990	1991	1992
	Return on book value of fixed assets (percent) 3/		
Free-machining bars:			
Operating return 4/.....	(15.0)	(14.0)	(12.1)
Net return 5/.....	(16.4)	(17.6)	(16.2)
Other bars:			
Operating return 4/.....	11.7	(3.5)	4.2
Net return 5/.....	5.0	(11.0)	(0.6)
All bars:			
Operating return 4/.....	4.1	(6.2)	(0.7)
Net return 5/.....	(1.1)	(12.7)	(5.3)
	Return on total assets (percent) 3/		
All products:			
Operating return 4/.....	4.7	(5.8)	(2.8)
Net return 5/.....	1.6	(9.5)	(5.7)
Free-machining semifinished:			
Operating return 4/.....	***	***	***
Net return 5/.....	***	***	***
Other semifinished:			
Operating return 4/.....	***	***	***
Net return 5/.....	***	***	***
All semifinished:			
Operating return 4/.....	***	***	***
Net return 5/.....	***	***	***
Free-machining bars:			
Operating return 4/.....	(10.3)	(10.1)	(7.5)
Net return 5/.....	(11.2)	(12.6)	(10.1)
Other bars:			
Operating return 4/.....	7.1	(2.3)	2.7
Net return 5/.....	3.0	(7.3)	(0.4)
All bars:			
Operating return 4/.....	2.5	(4.2)	(0.4)
Net return 5/.....	(0.7)	(8.6)	(3.3)

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

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

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

4/ Defined as operating income or loss divided by asset value.

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

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

Table 25

Capital expenditures by U.S. producers of subject special quality carbon and certain alloy steel products, by products, fiscal years 1990-92

(In thousands of dollars)

Item	1990	1991	1992
All products.....	355,887	388,456	190,215
Semifinished products:			
Free-machining.....	***	***	***
Other special quality.....	***	***	***
Total.....	***	10,669	6,349
Bars:			
Free-machining.....	***	***	***
Other special quality.....	***	***	***
Total.....	94,950	68,241	52,697

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

Table 26

Capital expenditures and expenses included in operations for environmental purposes by U.S. producers of subject special quality carbon and certain alloy steel products, by products, fiscal years 1990-92

(In thousands of dollars)

Item	1990	1991	1992
All products:			
Capital expenditures.....	25,288	27,876	22,811
Expensed in operations.....	114,516	119,944	123,189
Semifinished products:			
Free-machining:			
Capital expenditures.....	***	***	***
Expensed in operations...	***	***	***
Other special quality:			
Capital expenditures.....	***	***	***
Expensed in operations...	***	***	***
Total:			
Capital expenditures.....	***	***	***
Expensed in operations...	***	***	***
Bars:			
Free-machining:			
Capital expenditures.....	***	***	***
Expensed in operations...	***	***	***
Other special quality:			
Capital expenditures.....	***	***	***
Expensed in operations...	***	***	***
Total:			
Capital expenditures.....	***	***	***
Expensed in operations...	***	***	***

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

Research and Development Expenses

Research and development expenses reported by U.S. producers are presented in table 27. Only *** reported research and development expenses for both categories of semifinished products. *** accounted for *** research and development expenses for free-machining and other special quality bars during 1990-92.

Impact of Imports on Capital and Investment

Appendix I contains U.S. producers' description and explanation of the actual and potential negative effects of imports of certain special quality carbon and alloy steel hot-rolled bars and semifinished products from Brazil on their existing development and production efforts, growth, investment, and ability to raise capital.

Table 27

Research and development expenses of U.S. producers of subject special quality carbon and certain alloy steel products, by products, fiscal years 1990-92

* * * * *

CONSIDERATION OF THE QUESTION OF THREAT OF MATERIAL INJURY TO AN INDUSTRY IN THE UNITED STATES

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

In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the merchandise, the Commission shall consider, among other relevant economic factors¹³⁹--

(I) If a subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the subsidy is an export subsidy inconsistent with the Agreement),

(II) any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States,

¹³⁹ Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that "Any determination by the Commission under this title that an industry in the United States is threatened with material injury shall be made on the basis of evidence that the threat of material injury is real and that actual injury is imminent. Such a determination may not be made on the basis of mere conjecture or supposition."

(III) any rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level,

(IV) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,

(V) any substantial increase in inventories of the merchandise in the United States,

(VI) the presence of underutilized capacity for producing the merchandise in the exporting country,

(VII) any other demonstrable adverse trends that indicate the probability that the importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury,

(VIII) the potential for product-shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigation(s) under section 701 or 731 or to final orders under section 706 or 736, are also used to produce the merchandise under investigation,

(IX) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both), and

(X) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the like product.¹⁴⁰

¹⁴⁰ Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other GATT member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

The available information on the volume, U.S. market penetration, and pricing of imports of the subject merchandise (items (III) and (IV) above) is presented in the section entitled "Consideration of the Causal Relationship Between Imports of the Subject Products and the Alleged Material Injury;" and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts (item (X)) is presented in appendix I. Items (I) and (IX) above are not applicable in this investigation. Available information on U.S. inventories of the subject products (item (V)); foreign producers' operations, including the potential for "product-shifting" (items (II), (VI), and (VIII) above); any other threat indicators, if applicable (item (VII) above); and any dumping in third-country markets, follows.

**Ability of Foreign Producers to Generate Exports
and the Availability of
Export Markets Other Than the United States**

There are nine known manufacturers of special quality carbon and alloy steel products in Brazil: Aços Anhanguera SA (Villares); Aço Minas Gerais SA (Açominas); Villares Industria de Base SA (Vibasa); Cia Aços Especiais Itabira (ACESITA); Aços Finos Piratini SA (Piratini); Mannesmann SA; Siderúrgica J.L. Aliperti SA (Aliperti); Siderúrgica Mendes Junior SA (Mendes Junior); and Aparecida. Data were received in this investigation by the five major exporters of such products who were represented by counsel: Villares, Vibasa, Açominas, ACESITA, and Mannesmann.

Respondents' Data¹⁴¹

Information on capacity, production, inventories, and shipments of subject special quality carbon and alloy steel products for the major Brazilian manufacturers/exporters was provided by counsel and is presented in tables 28 and 29. Semifinished product capacity of the Brazilian producers, representing a significant portion of production of subject special quality

¹⁴¹ The classification of certain subject imports from Brazil was the topic of considerable attention at Commerce. The products under examination meet traditional criteria for semifinished products, principally having been subjected only to primary rolling and having a cross-sectional dimension over 4 inches, and enter the United States under HTS numbers designating semifinished products, but meet finished bar standards. Respondents argue that these products should be considered semifinished.

Commerce's Sept. 24, 1992, memorandum concludes that products which have been hot-rolled only on a primary rolling mill but meet the physical description and other characteristics of hot-rolled bars are considered to be hot-rolled bars for the purposes of this investigation. This determination affects all products produced by The Villares Group (Vibasa and Villares) and some limited production by Açominas. Commerce's determination is reflected in Brazilian production and shipment data included throughout this report. A more detailed discussion of the criteria upon which Commerce based its determination is included earlier in the section of this report entitled "Semifinished Products vs. Bars."

Table 28

Subject special quality carbon and certain alloy steel semifinished products: Brazilian capacity, production, inventories, capacity utilization, and shipments, 1990-92 and 1993-94 (projected)

* * * * *

Table 29

Subject special quality carbon and certain alloy steel hot-rolled bars: Brazilian capacity, production, inventories, capacity utilization, and shipments, 1990-92 and 1993-94 (projected)

* * * * *

carbon and alloy steel products in Brazil, rose by *** percent during 1990-91, and rose by *** percent between 1991 and 1992. Capacity of the Brazilian producers to produce hot-rolled bars rose by *** percent during 1990-91, and rose by *** percent between 1991 and 1992. For both products, increases in capacity were due to increased efficiency in ***'s operations.

Exports to the United States by the Brazilian manufacturers accounted for *** percent of total shipments of subject special quality carbon and alloy steel semifinished products in 1990; this share increased to *** percent in 1991, and then decreased to *** percent in 1992. The Brazilian firms reported operating at *** percent of subject semifinished product capacity during 1990, decreasing to *** percent in 1991, and then declining to *** percent during 1992. Exports to the United States by the Brazilian manufacturers accounted for *** percent of total shipments of subject special quality carbon and alloy steel hot-rolled bars in 1990; this share decreased to *** percent in 1991, and then decreased to *** percent in 1992. The Brazilian firms reported operating at *** percent of subject hot-rolled bar capacity during 1990, decreasing to *** percent in 1991, and then rising to *** percent during 1992.

Açominas asserts that certain of its rimmed and capped steels supplied to Co-Steel Raritan may not be special quality steels under the definitions provided in the questionnaire. Rimmed and capped steels accounted for approximately *** percent of Açominas' production and *** percent of exports of semifinished products to the United States in 1992. In the same year, these products accounted for *** and *** percent, respectively, of total reported Brazilian semifinished production and exports to the United States. Açominas justifies the exclusion of such steels from the investigation based on the following arguments:¹⁴²

- These are low-carbon and low-manganese steels (1006 to 1010) without any alloying element and with no requirements as to residual elements;
- Açominas guarantees these products only against gross defects, so the product only undergoes visual inspection at the finishing

¹⁴² Prehearing brief of Baker & McKenzie for Açominas, p. 13.

line. No guarantee is given as to absence of small defects, such as seams, which may be present at any depth. Seams are frequently found in this material;

- Açominas provides no guarantee as regards grain-size, segregation, or any metallographic features;
- The product is destined for "general application[s]," as stated in the purchase orders received by Açominas; and
- The product is not reprocessed by Açominas' customer before rolling into wire rod.

Table 30 presents information on Brazil's capacity, production, inventories, and shipments of special quality carbon and alloy steel semifinished products, excluding rimmed and capped semifinished products. Production capacity and capacity utilization data are ***.

Table 30

Subject special quality carbon and certain alloy steel semifinished products: Alternative scenario for Brazilian capacity, production, inventories, capacity utilization, and shipments, 1990-92 and 1993-94 (projected)

* * * * *

The issue of whether some of the special quality semifinished products made by Açominas might be outside the scope of the investigation was not considered by Commerce's product specialist during verification at Açominas' facility or in Commerce's scope determination.¹⁴³ According to Co-Steel Raritan, the purchaser of these steels, the broad definition of special quality steel makes classification of these steels inconclusive.¹⁴⁴

Additional Information Regarding the Brazilian Industry

Additional information on manufacturers/exporters of special quality carbon and alloy steel products in Brazil is presented below.¹⁴⁵

Respondents represented by counsel

Cia Aços Especiais Itabira. --ACESITA was established in 1944. The company's production is both ingot and continuously cast. Annual capacity is unknown. The company's capital equipment includes one blast furnace, one electric pig iron furnace, two BOFs, three EAFs, one slabbing mill, one blooming mill, three bar mills, one hot-strip mill, two cold-reduction mills, and one temper/skin pass mill. ACESITA's product line is comprised of foundry pig iron; carbon steel ingots, slabs, blooms, billets, round and square bars,

¹⁴³ TR, testimony of B. Thomas Peele III, Baker & McKenzie, p. 152.

¹⁴⁴ TR, testimony of Mr. Calanog, p. 153.

¹⁴⁵ Metal Bulletin Books, Iron and Steel Works of the World, 10th edition, 1991, pp. 28-50.

flats, bright bars, hot- and cold-rolled uncoated sheet and coil; stainless steel ingots, slabs, blooms, billets, round and square bars, and flats; alloy steel ingots, slabs, blooms, billets, round and square bars, flats, hot- and cold-rolled hoop and strip; hot- and cold-rolled sheet and coil, and electrical sheet and coil; free-cutting steel; high speed steel; leaded steel; and iron, steel, and nonferrous castings. ACESITA accounted for *** and *** percent, respectively, of reported Brazilian production and exports to the United States of special quality semifinished products in 1992. ACESITA accounted for *** and *** percent, respectively, of reported Brazilian production and exports to the United States of special quality bars in the same year. Sales of special quality products accounted for *** percent of total establishment sales in the most recent fiscal year.

Aço Minas Gerais SA.--Açominas, formerly a subsidiary of Siderbras, was established in 1966. The company has 6,140 workers and office employees. Açominas' production is ingot cast, and the company has an annual capacity of 1,860,000 metric tons of pig iron, 2,000,000 metric tons of raw steel, and 1,700,000 metric tons of finished steel. The company's capital equipment includes coke ovens, a sinter plant, one blast furnace, two basic oxygen converters, one vacuum degassing unit, one slabbing/blooming rolling mill and one blooming/billet rolling mill. Açominas' product line is composed of carbon steel slabs, primary and medium blooms, and billets. Açominas accounted for *** and *** percent, respectively, of reported Brazilian production and exports to the United States of special quality semifinished products in 1992. Açominas accounted for *** and *** percent, respectively, of reported Brazilian production and exports to the United States of special quality bars in the same year. Sales of special quality products accounted for *** percent of total establishment sales in the most recent fiscal year.

Aços Anhanguera (Villares) SA.--Villares, part of the Villares group, was established in 1966 and currently has 1,924 employees. Villares' production is ingot cast, and the company has an annual capacity of 370,000 metric tons of raw steel and 292,300 metric tons of finished steel. The company's capital equipment includes three EAFs, one vacuum degasser, one blooming mill, one billet mill, and two bar mills, and four bar straightening and three peeling machines. Villares' product line is comprised of carbon steel ingots, billets, round and square bars, flats, and bright bars; alloy steel ingots, billets, round and square bars, bright bars; and bearing steel. Villares accounted for *** and *** percent, respectively, of reported Brazilian production and exports to the United States of special quality bars in 1992. Sales of special quality products accounted for *** percent of total establishment sales in the most recent fiscal year.

Mannesmann SA.--Mannesmann, which is largely owned by Mannesmann AG, Germany, was established in 1952 and currently has 7,651 employees. Mannesmann's production is both ingot and continuously cast, and the company has an annual capacity of 7,000 metric tons of pig iron and one million metric tons of raw steel. The company's capital equipment includes two blast furnaces, three electric pig iron furnaces, one basic oxygen converter, one EAF, one continuous caster, one blooming and billet mill, one bar mill, four seamless tube and pipe mills, and other pipe mills. Mannesmann's product line is composed of pig iron; carbon steel ingots, billets, round and square bars, flats, hexagons, seamless tubes and pipes, oil country tubular goods (OCTG),

cold drawn tubes and pipes, and forged tubes and pipes; and alloy steel ingots, billets, round and square bars, flats, hexagons, seamless tubes and pipes, OCTG, and forged tubes. Mannesmann accounted for *** and *** percent, respectively, of reported Brazilian production and exports to the United States of special quality semifinished products in 1992. Mannesmann accounted for *** and *** percent, respectively, of reported Brazilian production and exports to the United States of special quality bars in the same year. Sales of special quality products accounted for *** percent of total sales in the most recent fiscal year.

Villares Industrias de Base SA.--Vibasa, part of the Villares group, was established in 1975 and currently has 2,025 employees. Vibasa's production is ingot cast, and the company has an annual capacity of 36,000 metric tons of pig iron, 400,000 metric tons of raw steel, and 310,000 metric tons of finished steel. The company's capital equipment includes three EAFs, a vacuum degassing system, one blooming mill, one billet mill, one bar mill, a heavy foundry/forging, and centrifugal casting machines for tubes. Vibasa's product line is comprised of foundry pig iron; carbon steel ingots, blooms, billets, wire rod, round and square bars, flats, hexagons, and centrifugally cast tubes; alloy steel ingots, blooms, billets, wire rod, round and square bars, flats, and hexagons; bearing steel; free-cutting steel; leaded steel; and spring steel. Vibasa accounted for *** and *** percent, respectively, of reported Brazilian production and exports to the United States of special quality bars in the same year. Sales of special quality products accounted for *** percent of total establishment sales in the most recent fiscal year.

Other Brazilian manufacturers/exporters

Siderúrgica J.L. Aliperti SA.--Aliperti was established in 1924; its subsidiaries include SA Agro Industrial Eldorado (reforestation and charcoal production) and Eldorado Comércio de Ferro e Aço Ltda (iron and steel trading). The company has 1,800 employees. Aliperti's output is continuously cast into billets, and the company has an annual capacity of 270,000 metric tons of pig iron, 400,000 metric tons of raw steel, and 320,000 metric tons of finished steel. The company's capital equipment includes two blast furnaces, one energy optimizing furnace, one refining plant, one four-strand billet caster, and four rolling mills (billet, medium section, light section, and bar). Aliperti's product line includes carbon steel billets, reinforcing bars, round bars, square bars, flats, light angles, medium angles, and medium channels.

Siderúrgica Mendes Júnior SA.--Mendes Junior was established in 1984 and currently has 7,600 employees. Mendes Junior's production is continuously cast, and the company has an annual capacity of 600,000 metric tons of raw steel and 1,100,000 metric tons of finished steel. The company's capital equipment includes one EAF, one continuous billet caster, and a bar and rod mill. Mendes Junior's product line is comprised of carbon steel wire rod, reinforcing bars, round and square bars, bright wire, black annealed wire, plain and barbed galvanized wire, and nails and staples.

Aços Finos Piratini SA.--Piratini, formerly a subsidiary of Siderbras, was established in 1961 and currently has 2,400 employees. The company's

production is currently ingot cast, but plans are underway to install a continuous caster. Annual capacity is unknown. The company's capital equipment includes a direct-reduction plant, one EAF, one billet mill, one bar mill, and one wire rod mill. Piratini's product line is comprised of carbon steel billets, wire rod, round and square bars, and flats; stainless steel billets, wire rod, round and square bars, and flats; and alloy steel billets, wire rod, round and square bars, and flats.

EC Dumping Duty Order

In February 1990 the Commission of the European Communities received a complaint lodged by the European Confederation of Iron and Steel Industries (Eurofer) on behalf of the majority of producers of certain semifinished products of alloy steel. The complaint contained evidence of dumping and of material injury caused by imports of certain semifinished products of special engineered alloy steel, of rectangular (including square) cross-section, hot-rolled or obtained by continuous casting, originating in Brazil and Turkey. The investigation covered the period April 1, 1989, to March 31, 1990. On March 30, 1992,¹⁴⁶ the EC issued its preliminary decision which established weighted-average margins of dumping and price undercutting margins, and determined that the dumped imports caused material injury to the Community industry. The EC determined that the prices of the Brazilian exporters should be increased by their price undercutting margin or their dumping margin, whichever is the lower. On June 30, 1992, the EC affirmed its preliminary decision and established definitive antidumping duties on imports of certain semifinished products of alloy steel from Brazil. The margins and definitive duties imposed (in percent) are as follows:¹⁴⁷

<u>Firm</u>	<u>Dumping margin</u>	<u>Undercutting margin</u>	<u>Definitive duty</u>
Vibasa.....	7.4	22.0	4.9
Anhanguera.....	15.0	26.0	15.0
Acesita.....	37.9	15.0	8.5
Piratini.....	1.7	9.0	1.7
All other.....	(1)	(1)	15.0

¹ Not applicable.

Petitioners assert that the imposition of these duties has eliminated the large EC market as a potential outlet for unfairly traded exports from Brazil, which will reportedly lead to increased emphasis on the U.S. market as a target for Brazilian exports.¹⁴⁸ These duties apply only to special quality alloy steel semifinished products; special quality carbon steel semifinished products and special quality carbon and alloy steel bars from Brazil are not affected by the EC determination.

¹⁴⁶ Due to the complexity of the proceeding, the investigation exceeded the normal period of one year.

¹⁴⁷ Commission (Provisional) Decision No. 891/92/ECSC and Commission (Definitive) Decision No. 1775/92/ECSC are presented in appendix J.

¹⁴⁸ Prehearing brief of Stewart & Stewart for petitioners, p. 2.

U.S. Importers' Inventories

U.S. importers' inventories of special quality carbon and alloy steel products are shown in tables 31 and 32. Inventories of Brazilian semifinished products as a percentage of imports fell dramatically from 1990 to 1991, then remained essentially constant in 1992. Inventories of hot-rolled bars from Brazil as a percentage of imports rose steadily from 1990 to 1992.

Table 31

Special quality carbon and certain alloy steel semifinished products: End-of-period inventories of U.S. importers, by products and by sources, 1990-92

* * * * *

Table 32

Special quality carbon and certain alloy steel hot-rolled bars: End-of-period inventories of U.S. importers, by products and by sources, 1990-92

* * * * *

CONSIDERATION OF THE CAUSAL RELATIONSHIP BETWEEN IMPORTS OF THE SUBJECT PRODUCTS AND THE ALLEGED MATERIAL INJURY

Imports

U.S. imports of non-lead and bismuth free-machining and other special quality carbon and alloy steel semifinished products and cut-length hot-rolled bars from Brazil (i.e., "subject" imports), based on responses to the Commission's questionnaires, are presented in tables 33 and 34.¹⁴⁹

Imports of the subject Brazilian free-machining semifinished products fell *** percent over the period, increasing from *** tons in 1990 to *** tons in 1991, or by *** percent, and then decreasing *** percent to *** tons in 1992. Imports of other special quality semifinished products subject to investigation increased from *** tons in 1990 to *** tons in 1991, or by *** percent, and then rose *** percent to *** tons in 1992. Imports of the subject free-machining hot-rolled bars from Brazil decreased from *** tons in 1990 to *** tons in 1991, or by *** percent, and then increased *** percent to *** tons in 1992. Imports of other special quality hot-rolled bars subject to investigation increased from *** tons in 1990 to *** tons in 1991, or by *** percent, and then decreased *** percent to *** tons in 1992.

¹⁴⁹ Imports from Brazil of lead and bismuth products and coiled bars, as well as imports from countries not under investigation, are included in the category "other sources." Imports of lead and bismuth bars from Brazil, France, Germany, and the United Kingdom, which were subject imports in Lead and Bismuth, are shown separately in the summary tables presented in appendix F.

Table 33

Special quality carbon and certain alloy steel semifinished products: U.S. imports, by products and by sources, 1990-92

Item	1990	1991	1992
	<u>Quantity (short tons)</u>		
Free-machining:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	68,276	55,533	93,526
Other special quality:			
Brazil.....	***	***	***
Other sources.....	***	***	***
Total.....	351,265	481,889	438,284
All special quality:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	419,541	537,422	531,810
	<u>Landed, duty-paid value (1,000 dollars)</u>		
Free-machining:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	26,477	19,493	32,341
Other special quality:			
Brazil.....	***	***	***
Other sources.....	***	***	***
Total.....	107,757	135,225	126,135
All special quality:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	134,234	154,718	158,476
	<u>Unit value (per short ton)</u>		
Free-machining:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Average.....	\$387.79	\$351.02	\$345.80
Other special quality:			
Brazil.....	***	***	***
Other sources.....	***	***	***
Average.....	306.77	280.61	287.79
All special quality:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Average.....	319.95	287.89	297.99

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

Table 34

Special quality carbon and certain alloy steel hot-rolled bars: U.S. imports, by products and by sources, 1990-92

Item	1990	1991	1992
	Quantity (short tons)		
Free-machining:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	133,855	140,825	***
Other special quality:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	139,720	186,315	181,757
All special quality:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	273,575	327,140	322,716
	Landed, duty-paid value (1,000 dollars)		
Free-machining:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	62,237	65,977	66,742
Other special quality:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	64,496	82,248	82,542
All special quality:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	126,733	148,225	149,284
	Unit value (per short ton)		
Free-machining:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Average.....	\$464.96	\$468.50	\$473.49
Other special quality:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Average.....	461.61	441.45	454.13
All special quality:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Average.....	463.25	453.09	462.59

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

Market Penetration of Imports

Shares of apparent U.S. consumption accounted for by imports of subject special quality carbon and alloy steel products are presented in tables 35 and 36. Imports of subject free-machining semifinished products as a percentage of apparent U.S. consumption (by quantity) rose from *** percent in 1990 to *** percent in 1991, before falling to *** percent in 1992. Imports of subject other special quality semifinished products as a percentage of apparent U.S. consumption rose from *** percent in 1990 to *** percent in 1991, increasing to *** percent in 1992. Imports of subject free-machining bars *** percent of apparent U.S. consumption in 1990 and 1991, before rising to *** percent in 1992. Imports of subject other special quality bars *** percent in 1990 and 1992, and *** percent in 1991.

Market penetration of subject imports over the period was low compared to penetration of nonsubject imports. Imports of nonsubject free-machining semifinished products as a percentage of apparent U.S. consumption (by quantity) decreased from *** percent in 1990 to *** percent in 1991, before rising to *** percent in 1992. Imports of nonsubject other special quality semifinished products as a percentage of apparent U.S. consumption rose from *** percent in 1990 to *** percent in 1991, then fell to *** percent in 1992. Imports of nonsubject free-machining bars increased from *** percent in 1990 to *** percent in 1991, before falling to *** percent in 1992. Imports of nonsubject other special quality bars increased from *** percent in 1990 to *** percent in 1991, and to *** percent in 1992.

Prices

Market Characteristics

The special quality carbon and alloy steel hot-rolled bars and semifinished products subject to this investigation are used in the automobile, heavy equipment, and farm machinery industries and other major sectors of the U.S. economy. While large quantities of bar products and most semifinished products that enter the market are sold directly to large manufacturers to be further processed for use in final products, significant quantities of bar products are also sold to independent forgers, cold finishers, steel distributors, and other classes of customers. Producers and importers have indicated that demand for these products has generally declined in recent years as a result of a slower economy and declining purchases by the major domestic auto producers.

Domestic producers and importers of these steel products may quote prices on either an f.o.b. or a delivered basis or both depending upon the particular supplier's policy. *** generally sell on an f.o.b. plant basis, whereas *** quote delivered prices.¹⁵⁰ ***, a major importer of these products from Brazil, quotes prices on both an f.o.b. and a delivered basis. Among the

¹⁵⁰ A number of U.S. producers also practice freight equalization. Under this policy, purchasers pay freight costs equal to the costs of shipping from the purchaser's nearest supplier and the producer absorbs any residual freight costs.

Table 35

Special quality carbon and certain alloy steel semifinished products: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, by products, 1990-92

Item	1990	1991	1992
	<u>Quantity (short tons)</u>		
Free-machining:			
Producers' U.S. shipments..	961,977	748,911	982,986
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	68,276	55,533	93,526
Apparent consumption.....	1,030,253	804,444	1,076,512
Other special quality:			
Producers' U.S. shipments..	5,883,299	5,472,149	5,767,659
Importers' U.S. shipments:			
Brazil.....	***	***	***
Other sources.....	***	***	***
Total.....	349,148	483,952	438,284
Apparent consumption.....	6,232,447	5,956,101	6,205,943
All special quality:			
Producers' U.S. shipments..	6,845,276	6,221,060	6,750,645
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	417,424	539,485	531,810
Apparent consumption.....	7,262,700	6,760,545	7,282,455
	<u>Value (1,000 dollars)</u>		
Free-machining:			
Producers' U.S. shipments..	321,745	251,649	318,901
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	29,803	21,980	34,654
Apparent consumption.....	351,548	273,629	353,555
Other special quality:			
Producers' U.S. shipments..	2,115,232	1,984,377	1,853,680
Importers' U.S. shipments:			
Brazil.....	***	***	***
Other sources.....	***	***	***
Total.....	110,843	137,621	128,620
Apparent consumption.....	2,226,075	2,121,998	1,982,300

Table continued on next page.

Table 35--Continued

Special quality carbon and certain alloy steel semifinished products: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, by products, 1990-92

Item	1990	1991	1992
	Value (1,000 dollars)		
All special quality:			
Producers' U.S. shipments..	2,436,977	2,236,026	2,172,581
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	140,646	159,601	163,274
Apparent consumption.....	2,577,623	2,395,627	2,335,855
	Share of the quantity of U.S. consumption (percent)		
Free-machining:			
Producers' U.S. shipments..	93.4	93.1	91.3
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	6.6	6.9	8.7
Other special quality:			
Producers' U.S. shipments..	94.4	91.9	92.9
Importers' U.S. shipments:			
Brazil.....	***	***	***
Other sources.....	***	***	***
Total.....	5.6	8.1	7.1
All special quality:			
Producers' U.S. shipments..	94.3	92.0	92.7
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	5.7	8.0	7.3
	Share of the value of U.S. consumption (percent)		
Free-machining:			
Producers' U.S. shipments..	91.5	92.0	90.2
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	8.5	8.0	9.8
Other special quality:			
Producers' U.S. shipments..	95.0	93.5	93.5
Importers' U.S. shipments:			
Brazil.....	***	***	***
Other sources.....	***	***	***
Total.....	5.0	6.5	6.5

Table 35--Continued

Special quality carbon and certain alloy steel semifinished products: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, by products, 1990-92

Item	1990	1991	1992
	Share of the value of U.S. consumption (percent)		
All special quality:			
Producers' U.S. shipments..	94.5	93.3	93.0
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	5.5	6.7	7.0

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

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

Table 36
 Special quality carbon and certain alloy steel hot-rolled bars: U.S.
 shipments of domestic product, U.S. shipments of imports, and apparent U.S.
 consumption, by products, 1990-92

Item	1990	1991	1992
	<u>Quantity (short tons)</u>		
Free-machining:			
Producers' U.S. shipments..	776,432	601,006	767,130
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	134,069	140,897	140,544
Apparent consumption.....	910,501	741,903	907,674
Other special quality:			
Producers' U.S. shipments..	4,244,728	3,995,727	4,115,784
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	135,879	183,275	181,126
Apparent consumption.....	4,380,607	4,179,002	4,296,910
All special quality:			
Producers' U.S. shipments..	5,021,160	4,596,733	4,882,914
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	269,948	324,172	321,670
Apparent consumption.....	5,291,108	4,920,905	5,204,584
	<u>Value (1,000 dollars)</u>		
Free-machining:			
Producers' U.S. shipments..	390,990	302,745	374,265
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	62,747	67,489	66,898
Apparent consumption.....	453,737	370,234	441,163
Other special quality:			
Producers' U.S. shipments..	2,070,735	1,908,613	1,902,030
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	65,236	84,657	84,540
Apparent consumption.....	2,135,971	1,993,270	1,986,570

Table continued on next page.

Table 36--Continued

Special quality carbon and certain alloy steel hot-rolled bars: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, by products, 1990-92

Item	1990	1991	1992
	Value (1,000 dollars)		
All special quality:			
Producers' U.S. shipments..	2,461,725	2,211,358	2,276,295
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	127,983	152,146	151,438
Apparent consumption.....	2,589,708	2,363,504	2,427,733
	Share of the quantity of U.S. consumption (percent)		
Free-machining:			
Producers' U.S. shipments..	85.3	81.0	84.5
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	14.7	19.0	15.5
Other special quality:			
Producers' U.S. shipments..	96.9	95.6	95.8
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	3.1	4.4	4.2
All special quality:			
Producers' U.S. shipments..	94.9	93.4	93.8
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	5.1	6.6	6.2
	Share of the value of U.S. consumption (percent)		
Free-machining:			
Producers' U.S. shipments..	86.2	81.8	84.8
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	13.8	18.2	15.2
Other special quality:			
Producers' U.S. shipments..	96.9	95.8	95.7
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	3.1	4.2	4.3

Table 36--Continued

Special quality carbon and certain alloy steel hot-rolled bars: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, by products, 1990-92

Item	1990	1991	1992
	Share of the value of U.S. consumption (percent)		
All special quality:			
Producers' U.S. shipments..	95.1	93.6	93.8
Importers' U.S. shipments:			
Brazil (subject).....	***	***	***
Other sources.....	***	***	***
Total.....	4.9	6.4	6.2

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

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

other importers of Brazilian products, *** reported that they quote f.o.b. prices, while *** reported that they quote delivered prices.

Most of the major integrated domestic producers publish price lists, but *** do not. Policies on discounting from list prices vary by company. Virtually all producers reported that final transaction prices are negotiated from the price list, although departures from the price schedule are made by some producers only to meet prevailing prices or competitive price quotes while others use the list as a known benchmark from which to start negotiations. ***. *** stated in the preliminary investigation that ***.¹⁵¹ In contrast to the domestic producers, none of the importers of the Brazilian products use price lists, preferring to make all sales on negotiated prices based on market conditions.

Parties to the investigation and purchasers agree that it is common for many purchasers to qualify domestic and foreign sources of special quality products based on the ability of the producers to meet certain standards relating to product quality, ability to produce specific grades and sizes, acceptable reduction ratios, and ability to meet prescribed delivery requirements.¹⁵² A qualified producer may then enter into negotiations with a prospective purchaser to determine other issues relating to specific product specifications, prices, terms of sale, delivery schedules, and other areas of concern to the buyer. Petitioners claim that once a source has met the qualification procedures for a particular buyer, the primary consideration during these negotiations is price.¹⁵³ While purchasers generally agree that price is important to their final purchasing decisions, they also noted that other factors are important and may outweigh the absolute price level.¹⁵⁴ Petitioners similarly observed that,

In fact, one purchaser stated that "his price objective was to go to Brazil any time their price was at least ten percent lower than the prevailing domestic price."¹⁵⁵

and

The creation of a price baseline does not always mean that all competitors must meet the lowest price. Domestic producers were expected to come within approximately 1% up to 8% (e.g., "striking distance") of the lowest price quote. This premium over the lowest-priced competitor is tolerated as a matter of convenience: "There is no need to deal with exchange rates, foreign languages, . . . longer

¹⁵¹ Conversation with ***.

¹⁵² See, e.g., discussion of qualification procedures in petitioners' pre-hearing brief, pp. 55-57.

¹⁵³ Petitioners' post-hearing brief, pp. 56-57.

¹⁵⁴ ***. Virtually all purchasers stated that quality and availability were, with price, the most important factors; and the supplier's product range, technical support, delivery, and credit terms were important to varying degrees.

¹⁵⁵ Petitioners' post-hearing brief, p. 59.

delivery schedules, and different ways of arranging business transactions."¹⁵⁶

Special quality carbon and alloy steel hot-rolled bars and semifinished products are commonly sold on both a contract and a spot basis by domestic producers and importers of Brazilian products. In general, the larger U.S. producers reported that the majority of their sales were on a contract basis, and many purchasers also indicated that contracts were their most frequent vehicle in buying special quality bars. Smaller producers and most importers reported that most sales are on a spot basis. Contract periods reportedly range in length from 3 months to 3 years, although most are in the range of 6 months to 1 year. Under the contract terms, price and quantities are commonly fixed for the agreed upon period and, in some cases, the contract allows for a premium to be charged for sub-minimum shipments.¹⁵⁷

* * * * *

Special quality carbon and alloy steel hot-rolled bars and semifinished products are sold throughout the continental United States, although some of the individual suppliers indicated that the preponderance of their sales are in particular regions. *** sell mainly in the east and the midwest, whereas ***'s sales are primarily in the Great Lakes area. *** stated that its sales of the Brazilian products are concentrated in the Gulf Coast, midwest, and West Coast regions. ***, another importer, sells mainly in the Gulf region, and ***'s sales are primarily in the eastern half of the United States. The majority of shipments of these products are made by truck or truck/rail combination. The largest share of shipments are within a 500-mile radius of the producer's plant or the importer's point of shipment within the United States.¹⁵⁸

Transportation costs account for a relatively small share of the total delivered prices of these steel products when shipping distances are 500 miles or less, but these costs can increase significantly for shipments beyond a 500-mile radius. Producers and importers reported that these costs range from 1 to 5 percent of the delivered price for shipments of less than 500 miles. However, *** reported that shipping costs average *** of the delivered price, respectively, for distances of more than 500 miles, and *** reported that its costs for these longer-distance shipments averaged *** percent of the delivered price.

Evidence obtained in the investigation indicates that producers, importers, and purchasers generally regard the domestic and imported special quality carbon and alloy hot-rolled steel bars and semifinished products from Brazil as essentially equivalent in quality. However, lead times for delivery of the domestic products to steel customers are significantly shorter than those for the Brazilian products. Domestic lead times ranged from as little as one day for high-volume items to as much as 3 months for more specialized

¹⁵⁶ Ibid., fn. 10, p. 59.

¹⁵⁷ ***.

¹⁵⁸ Individual producers and importers deviated from this pattern somewhat. For example, ***.

products. In contrast, lead times for delivery of imports from Brazil ranged from 3 to 5 months.¹⁵⁹

Purchasers were also requested to provide the names of domestic and foreign producers that they consider to be price leaders in the market for specialty steel products. Thirty-one suppliers were named by purchasers, including domestic producers, domestic distributors, Brazilian producers, and a number of other foreign suppliers. The most frequently named supplier, specified as the price leader in 11 questionnaires, was Timken. MacSteel, North Star, Inland, and Copperweld were each named by 7 purchasers, Green River by 6, and Republic by 4. Ferrostaal, a supplier of Brazilian material, was named by 3 purchasers, as were Koppel and Nucor.¹⁶⁰

Questionnaire Price Data

Because of the very wide range of products covered by this investigation and difficulty in collecting adequate price data in the preliminary investigation, the petitioners and respondents were consulted extensively in selecting products for the purpose of obtaining prices on items that are commonly sold by both producers and importers. The seven selected products shown below include several selected by each.¹⁶¹ For each of these products, producers and importers were asked to provide f.o.b. and delivered prices for their largest sales in each quarter, as well as total quantities and values shipped, in all quarters during January 1990-December 1992.¹⁶² Customers were asked to provide similar data for their purchases of the same products.

PRODUCT 1: Carbon steel semifinished billets for rerolling, SAE Series 1000, square, 4"-6" in cross-section.

PRODUCT 2: Hot-rolled carbon bar, SAE Series 1000, round-cornered squares, 3" to 8" in cross-section, not heat-treated.

PRODUCT 3: Hot-rolled carbon bar, SAE Series 1500, round-cornered squares, 3" to 8" in cross-section, not heat-treated.

PRODUCT 4: Hot-rolled alloy bar, SAE Series 4100, round-cornered squares, 3" to 8" in cross-section, not heat-treated.

¹⁵⁹ However, evidence on the record also indicates that ***.

¹⁶⁰ A number noted that they considered no particular firm to be a price leader, several noted that all foreign suppliers were price leaders, and several purchasers did not respond to the question.

¹⁶¹ In the preliminary investigation, petitioners and respondents also participated in the selection of products for which price data were collected. Nevertheless, producers' and importers' responses to the questionnaires provided inadequate data for thorough analysis.

¹⁶² Producers and importers were requested to further separate their responses by type of customer -- hot-rolled producer, forger, or cold finisher. Only one response provided prices at this level of disaggregation and, since sales are reportedly not distinguished by type of customer, the data below are aggregated across all customer types.

- PRODUCT 5: Hot-rolled alloy bar, SAE Series 4100, rounds, 3" to 8" in diameter, not heat-treated.
- PRODUCT 6: Hot-rolled alloy bar, SAE Series 50B 00 (which includes types 30 through 40), rounds or squares, 1-7/8" to 4" in diameter or cross-section, not heat-treated.
- PRODUCT 7: Hot-rolled alloy bar, SAE Series 15B 00 (which includes types 28 through 35), rounds or squares, 2-3/8" to 5-1/2" in diameter or cross-section, not heat-treated.

Eight producers, representing 66.0 percent of total reported U.S. production of semifinished products under investigation and 71.9 percent of total reported U.S. production of bars in 1992, provided price information on one or more of the selected products. For each of the product categories, at least three producers provided price information, although not necessarily for all quarters. Only ***. Purchaser questionnaires were sent to 75 firms identified as buyers of special quality bar products, of which 43 provided some data and 20 provided usable pricing data.¹⁶³ These 43 purchasers accounted for approximately 15 percent of open market shipments of U.S.-produced hot-rolled special quality bars¹⁶⁴ and 74 percent of U.S. imports of hot-rolled special quality bars from Brazil in 1992.

Quarterly average prices of domestic and imported products 1-7 are shown in tables 37 through 42 for data provided by producers and importers, and in tables 43 through 48 for data provided by purchasers.¹⁶⁵ In the case of product 1, all sales were reported by producers and importers on an f.o.b. basis. In the cases of products 2-7, price data were reported by producers and importers for both f.o.b. and delivered sales, the most complete being for delivered; accordingly, data shown for those products are based on either actual delivered prices or on f.o.b. prices adjusted to a delivered basis using data supplied in the questionnaires. All purchaser data are on a delivered basis.

Table 37

Weighted-average net f.o.b. prices of product 1 reported by U.S. producers and importers, margins of underselling (overselling), and total shipments, by quarters, January 1990-December 1992

* * * * *

¹⁶³ Four additional purchasers provided pricing data that were in a form that could not be aggregated with other data or that were for products other than those requested. Among these four were ***.

¹⁶⁴ A number of purchasers did not provide data regarding their total purchases of special quality bars but did provide data regarding prices paid for such products. Therefore, the share of shipments accounted for by responding purchasers actually exceeds 15 percent by an unknown amount.

¹⁶⁵ When possible, weighted-average prices were computed for the reported sales. However, in many of the quarters the prices represent sales by only one producer, importer, or purchaser.

Table 38

Weighted-average net f.o.b. prices of product 2 reported by U.S. producers and importers, margins of underselling (overselling), and total shipments, by quarters, January 1990-December 1992

* * * * *

Table 39

Weighted-average net delivered prices of product 3 reported by U.S. producers and importers, margins of underselling (overselling), and total shipments, by quarters, January 1990-December 1992

* * * * *

Table 40

Weighted-average net delivered prices of product 4 reported by U.S. producers and importers, margins of underselling (overselling), and total shipments, by quarters, January 1990-December 1992

* * * * *

Table 41

Weighted-average net delivered prices of product 5 reported by U.S. producers and importers, margins of underselling (overselling), and total shipments, by quarters, January 1990-December 1992

* * * * *

Table 42

Weighted-average net delivered prices of products 6 and 7 reported by U.S. producers, and total shipments, by quarters, January 1990-December 1992

* * * * *

Table 43

Weighted-average net delivered prices of product 2 reported by purchasers, margins of underselling (overselling), and total purchases, by quarters, January 1990-December 1992

* * * * *

Table 44

Weighted-average net delivered prices of product 3 reported by purchasers, margins of underselling (overselling), and total purchases, by quarters, January 1990-December 1992

* * * * *

Table 45

Weighted-average net delivered prices of product 4 reported by purchasers, margins of underselling (overselling), and total purchases, by quarters, January 1990-December 1992

* * * * *

Table 46

Weighted-average net delivered prices of product 5 reported by purchasers, margins of underselling (overselling), and total purchases, by quarters, January 1990-December 1992

* * * * *

Table 47

Weighted-average net delivered prices of product 6 reported by purchasers, margins of underselling (overselling), and total purchases, by quarters, January 1990-December 1992

* * * * *

Table 48

Weighted-average net delivered prices of product 7 reported by purchasers, and total purchases, by quarters, January 1990-December 1992

* * * * *

Price trends for U.S.-produced products as reported by producers

Four U.S. producers provided f.o.b. price data on sales of product 1, semifinished billets for rerolling. The data show that weighted-average prices of product 1 remained exceptionally stable during January 1990-December 1992, fluctuating very slightly between ***.¹⁶⁶

Weighted-average delivered prices reported for products 2, 3, 4, and 6 were similar in both absolute value and in price movements. Prices for all these products ranged between *** per hundredweight¹⁶⁷ and, while fluctuations occurred within that range, all declined slightly over the period January 1990-December 1992.¹⁶⁸ Weighted-average delivered prices for products 5 and 7 were initially higher, ***, respectively in early 1990, than most other

¹⁶⁶ Prices reported by *** per hundred pounds.

¹⁶⁷ A single exception occurred in the price of product 4 during the first quarter of 1990. This price, *** per hundredweight, was the result of an unusually high price reported by one producer.

¹⁶⁸ The single exception to this pattern is an ***.

products and declined more markedly to approximately *** per hundredweight by the end of 1992.¹⁶⁹

Price trends for Brazilian products as reported by importers

*** importers of Brazilian products subject to this investigation provided price data sufficiently complete for analysis. ***.

Reported prices of product 1 from Brazil fluctuated between *** per hundredweight in 1990 and 1991. These prices increased markedly to *** per hundredweight in early 1992 but settled back to near *** per hundredweight during the final three quarters of 1992.

Delivered price data for products 2 and 3 were not sufficiently complete to determine a reliable trend over the period for which data were collected. *** of product 2 at *** per hundredweight in early 1990, *** in early 1991, and at *** per hundredweight in late 1992. Similarly, although *** reported prices for product 3, these sales *** and most observations therefore represent sales of only one importer. Prices reported for product 3 fluctuated between *** per hundredweight during the period for which data were collected.

Weighted-average prices for imports of products 4 and 5 were relatively complete. In general, prices of both products declined over the period for which data were collected, product 4 by *** percent and product 5 by *** percent.

Price comparisons based on producer and importer data

Comparisons of prices between U.S.-produced and imported Brazilian special quality products were possible in 41 instances during the period 1990-92. In all but one of these instances, prices for the Brazilian products were lower than those for the U.S.-produced products. The margins of underselling ranged from *** percent to *** percent.

Margins of underselling for product 1, semifinished billets, ranged between *** percent and *** percent. Margins were generally lower in 1992 than in previous years.¹⁷⁰ Margins of underselling for products 2 and 3 fluctuated noticeably, reflecting the sporadic nature of sales of the Brazilian products. These margins ranged between *** percent and *** percent, with one instance of the Brazilian product 3 price at *** percent higher than the comparable U.S. product.

Margins of underselling for product 4 were generally lower than those for the other products for which price data were collected. With the

¹⁶⁹ An unusually high price was also reported for product 4 in early 1990 but is believed to be unrepresentative of prices for that product generally. Similarly, product 6 showed a notable decline in late 1992, but prior to that period had remained relatively stable.

¹⁷⁰ As noted above, ***.

exception of a *** in January-March 1990, these margins ranged from *** percent to *** percent, trending upward over the period for which data were collected. Margins for product 5 ranged between *** percent and *** percent, with no clear pattern.

Price trends based on data provided by purchasers

All 43 purchasers providing price information in response to the Commission's questionnaire reported buying special quality bar products from U.S. producers, and 8 reported also purchasing bar products imported from Brazil.¹⁷¹ The weighted-average prices based on purchasers' data are similar to those based on producers' and importers' data. Prices of most U.S.-produced products fluctuated within relatively narrow ranges during 1990-92. Several products, particularly 4 and 5, showed moderately declining prices while others were considerably more stable. Similarly, average prices reported for Brazilian products fluctuated within generally stable or slightly declining trends.¹⁷²

Price comparisons based on data provided by purchasers

Comparisons of prices between U.S.-produced and imported Brazilian special quality products based on purchaser data were possible in 45 instances during the period 1990-92. In 35 of these instances, prices for the Brazilian products were lower than those for the U.S.-produced products. The margins of underselling ranged from *** percent to *** percent. In 10 instances, prices for the Brazilian products exceeded the average price for comparable U.S.-produced products by margins ranging from *** percent to *** percent.

Exchange Rates

Quarterly data reported by the International Monetary Fund indicate that during January 1990-December 1992 the nominal value of the Brazilian cruzeiro steadily decreased, ending the period at only 0.3 percent of its initial value

¹⁷¹ Several purchasers identifying themselves as forgers reported buying semifinished products rather than, or in addition to, bar products. Staff contacted these purchasers and confirmed that these products were used in forging without undergoing additional rolling, thereby meeting the Commerce definition of bar, rather than semifinished products. Where prices for such products were reported under product 1 (series 1000 semifinished products), staff reclassified the product as product 2 (series 1000 bar products), whether the source of product was domestic or Brazilian.

In addition, *** statements that the domestic and Brazilian products are not similar, these prices are shown in appendix K, rather than in the tables in this section of the report.

¹⁷² While weighted-average prices of U.S. products generally represent a significant number of reporting firms, most prices for Brazilian products are based on data provided by a small number of purchasers in any particular calendar quarter.

States and Brazil, the real value of the Brazilian currency showed a net depreciation of 36.8 percent relative to the dollar between January-March 1990 and October-December 1992.

Lost Sales and Lost Revenues

The Commission received lost sales and lost revenue allegations from four U.S. producers in the final investigation: ***.¹⁷⁴ With the exception of those made by ***, the allegations made in the final investigation largely replicated those made in the preliminary investigation.¹⁷⁵ The following discussion relates the information obtained by the staff in both the final and preliminary investigations.

In their questionnaire responses, domestic producers provided lost sales allegations relating to imports from Brazil that involved over *** short tons of special quality carbon and alloy steel hot-rolled bars and semifinished products valued at over ***. They also provided lost revenue allegations valued at over *** on sales of over *** short tons. The staff contacted purchasers at the companies named in the largest of the allegations.

*** alleged the loss to Brazil of both sales and revenues in their business with *** during 1990-92. The lost sales totaled approximately *** tons valued at ***. Alleged lost revenues totaled *** on sales of *** tons valued at ***.¹⁷⁶

***, buyer of this product for ***, reported that his firm purchases approximately *** tons of steel each year, of which approximately *** tons are special quality bar. He stated that *** is interested in long-term buying relationships with its suppliers and *** during a period of tight domestic supply. In the same regard, *** has qualified a number of domestic bar producers, including ***. *** noted that once a producer has been accepted as qualified on the basis of its product quality, ability to supply, and other such criteria, *** tries to select the supplier of each specific item on the basis of long-term cost-effectiveness. This approach means that *** does not purchase special quality bar in the spot market and may not be paying the lowest price at any particular time, but that longer-term considerations are expected to offset any temporary price issues.

¹⁷⁴ In response to the questions regarding whether the respondent had either reduced prices or rolled back announced price increases to avoid losing sales to imports from Brazil, or whether the respondent had lost sales to Brazil, seven U.S. producers specifically answered in the negative. ***.

¹⁷⁵ The Commission requested U.S. producers to provide examples of lost sales and lost revenues for 1990-92. The information on lost sales and lost revenues provided by ***.

¹⁷⁶ In addition to the specific competition referred to in purchaser's questionnaires, *** provided affidavits regarding developments relating to their major accounts (see petitioner's submission dated Jan. 12, 1993). Many of the customers referred to in the affidavits are also those for whom information is provided in the questionnaires, although the calculation of tonnage and revenues involved is somewhat different.

Table 49

Exchange rates:¹ Indexes of nominal and real exchange rates of the Brazilian cruzeiro and indexes of producer prices in the United States and Brazil,² by quarters, January 1990-December 1992

Period	U.S. producer price index	Brazilian producer price index	Nominal exchange rate index	Real exchange rate index ³
1990:				
January-March.....	100.0	100.0	100.0	100.0
April-June.....	99.8	193.7	48.1	93.4
July-September.....	101.6	260.6	35.4	90.8
October-December....	104.7	389.8	20.3	75.6
1991:				
January-March.....	102.5	634.3	11.7	72.6
April-June.....	101.5	822.3	9.2	74.5
July-September.....	101.4	1,155.4	6.7	76.4
October-December....	101.5	2,118.3	3.3	69.2
1992:				
January-March.....	101.3	4,096.3	1.7	68.2
April-June.....	102.3	7,089.3	0.9	65.7
July-September.....	102.8	13,396.3	0.5	69.1
October-December....	102.9	23,530.5	0.3	63.2

¹ Exchange rates expressed in U.S. dollars per Brazilian cruzeiro.

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

³ The real exchange rate is derived from the nominal rate adjusted for relative movements in producer prices in the United States and Brazil.

Note.--January-March 1990 = 100. The real exchange rates, calculated from precise figures, cannot in all instances be derived accurately from previously rounded nominal exchange rate and price indexes.

Source: International Monetary Fund, International Financial Statistics, April 1993

While *** did not address the specific purchases referred to in the allegations, he noted that price is always an issue in negotiations to one degree or another. He stated that when he negotiates his purchases, ***. He emphasized, however, that ***. But, *** stated, despite ***, most firms can easily determine who their competition is by simply paying attention to the source of steel in the buyer's warehouse at any time.

*** stated that *** in 1992-93, and that *** had garnered an increasing portion of ***'s bar business based on their ability to supply specific, but limited, size ranges. Similarly, he believes that recent continuous casting developments by *** have made them considerably more competitive in the market place and that their improved cost-effectiveness has helped them sell to ***. *** is not the most cost-effective producer at the current time. *** noted that after the ***.

Finally, *** observed that in recent months the supply of special quality bar in the U.S. market has become very tight. He attributes the situation to antidumping petitions, the closure of the Bethlehem mill, and the inability of other suppliers to meet the market needs. He stated that ***. Because of this situation, ***.

*** provided a large number of lost revenue and lost sales allegations relating to ***. The lost sales allegations, which involved transactions during 1989-91, were valued at ***, and the lost revenue allegations were valued at ***.¹⁷⁷ ***, the spokesman for ***, denied the general nature of the allegations, saying that *** has been increasing its purchases of domestic special quality steel products and reducing purchases of imported Brazilian products because of their higher prices relative to comparable domestic products. He said that *** has reduced purchases of Brazilian products from about *** percent of total purchases of special quality steel two years ago to about *** percent a year ago. He said that purchases of these imports have continued to decline in the past year and now account for only about *** percent of ***'s purchases of special quality steel products.¹⁷⁸

On further inquiry by the Commission, ***.

* * * * *

*** alleged that it lost revenues of *** on sales of three categories of products to *** during 1989 and 1990 as a result of competition from imports from Brazil. *** stated that it was forced to reduce the delivered value of its quotations on sales of *** tons of steel products from *** to ***. *** acknowledged that the allegations were generally true. He said that during 1989 and 1990 *** had threatened to increase its purchases of low-priced imports from Brazil unless domestic producers reduced their prices on the specified products. However, *** believed that the actual percentage reductions in prices and lost revenues were smaller than the alleged amounts.

*** further stated that *** has always bought most of its special quality steel products from domestic producers and has purchased only small

¹⁷⁷ ***.

¹⁷⁸ ***.

amounts of imports from Brazil. He said that prices of the imports from Brazil are lower than those of domestic products and that in many cases the quality of these imports is superior to the domestic product. However, he said that his company purchases mostly from domestic producers because their shorter delivery lead times make it easier for *** to manage its inventories.

*** also alleged that it lost revenues of *** on total sales of *** short tons of three separate products included within the *** series during 1992 to *** due to import competition from Brazil. *** also alleged that it lost a sale of *** short tons of another product in the *** series valued at *** to *** in *** as a result of this competition. ***, the spokesman for ***, denied the lost revenue allegation. He said that *** had not purchased the products described in the allegation from any source during 1992. *** could not confirm or deny the lost sales allegation, although he believed that the volume described in the allegation was too large.

*** said that *** has largely discontinued purchases of imports from Brazil during 1991 and 1992. He said that most of those imports had previously gone to ***.

*** alleged that it lost revenues of *** on sales of *** short tons of products in the *** series between 1990 and 1992 to *** as a result of competition from imports from Brazil. *** further alleged that it lost sales of *** short tons of three other categories of products in the *** series valued at *** during 1991 as a result of this import competition. *** of *** denied the lost revenue and lost sales allegations. He said that his company does purchase imports from Brazil, but that the largest share of his purchases are from domestic producers. *** further stated that *** largest supplier of special quality steel products because of its close proximity to the *** facility. The ***.

*** alleged that it lost revenues of *** on sales of two separate categories of semifinished products to *** in *** due to competition from Brazilian products. ***, the spokesman for ***, denied the allegation. He said that all of ***'s purchases for 1991 had been negotiated in ***, and that no additional negotiation for sales occurred in September 1991.

*** said that his company buys primarily from domestic sources. He said that his company bought approximately *** tons of domestic special quality steel products and about *** tons of imported Brazilian products in 1991. However, *** has not purchased any Brazilian products in 1992 and is not planning to purchase any of these imports in 1993.

*** further stated that prices of imports from Brazil were far lower than domestic prices in the early 1980s, but that the differential has narrowed significantly since that time. He believes that Brazil's prices are lower for carbon steel products, but are often higher for alloy steel products.

*** provided three separate lost revenue allegations and three separate lost sales allegations, all relating to a single product in the *** series that it sold to *** during 1989-91. The lost revenue allegations were valued at ***, and the lost sales allegations were valued at ***. ***, who is responsible for purchases at ***, denied all of the allegations. He said that

his company did not reduce its purchases of the domestic products during the periods when the lost sales and lost revenues allegedly occurred. *** said that while *** seeks the lowest-priced quotes that it can obtain from its qualified suppliers, it does not use separate quotes of competing suppliers to bid down prices.¹⁷⁹

*** also stated that all of its suppliers must undergo a rigorous qualification process before they are accepted as approved suppliers. Normally this process takes as much as one year for individual plants. Because of the lengthy qualification process that is required for approving new suppliers, his company prefers to continue providing business for its established suppliers instead of undergoing the complex process required to obtain new sources of supply. *** indicated that some Brazilian plants and some domestic plants have not been qualified thus far.

*** said that *** divides its purchases between domestic sources and Brazil and ***. He said that its imports from *** have increased recently relative to those from Brazil because of lower prices.

APPENDIX A

FEDERAL REGISTER NOTICES OF THE COMMISSION AND COMMERCE

[Investigation No. 731-TA-572 (Final)]

Certain Special Quality Carbon and Alloy Hot-Rolled Steel Bars and Semifinished Products From Brazil

AGENCY: United States International Trade Commission.

ACTION: Institution and scheduling of a final antidumping investigation.

SUMMARY: The Commission hereby gives notice of the institution of final antidumping investigation No. 731-TA-572 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) (the Act) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Brazil of certain special quality carbon and alloy hot-rolled steel bars and semifinished products, provided for in subheadings 7207.11.00, 7207.12.00, 7207.19.00, 7207.20.00, 7214.30.00, 7214.40.00, 7214.50.00, 7214.60.00, 7224.10.00, 7224.90.00, and 7228.30.80 of the Harmonized Tariff Schedule of the United States.¹

For further information concerning the conduct of this investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207).

EFFECTIVE DATE: January 11, 1993.

FOR FURTHER INFORMATION CONTACT: Stephanie Kaplan (202-205-3199) or Jim McClure (202-205-3191), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information of this matter by contacting the Commission's TDD terminal on 202-205-1810. Persons with mobility impairments who will need special assistance in gaining access to the

¹ For a more detailed description of the products subject to this investigation, see the Department of Commerce's notice of preliminary determination (58 FR 3533, Jan. 11, 1993).

Commission should contact the Office of the Secretary at 202-205-2000.

SUPPLEMENTARY INFORMATION:

Background

This investigation is being instituted as a result of an affirmative preliminary determination by the Department of Commerce that imports of certain special quality carbon and alloy hot-rolled bars and semifinished products from Brazil are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. 1673b). The investigation was requested in a petition filed on June 9, 1992, by Republic Engineered Steels, Inc., Massillon, OH, and the Timken Company, Canton, OH.

Participation in the Investigation and Public Service List

Persons wishing to participate in the investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules not later than twenty-one (21) days after publication of this notice in the *Federal Register*. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance.

Limited Disclosure of Business Proprietary Information (BPI) Under an Administrative Protective Order (APO) and BPI Service List

Pursuant to § 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in this final investigation available to authorized applicants under the APO issued in the investigation, provided that the application is made not later than twenty-one (21) days after the publication of this notice in the *Federal Register*. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

Staff Report

The prehearing staff report in this investigation will be placed in the nonpublic record on May 19, 1993, and a public version will be issued thereafter, pursuant to § 207.21 of the Commission's rules.

Hearing

The Commission will hold a hearing in connection with this investigation beginning at 9:30 a.m. on June 2, 1993, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in

writing with the Secretary to the Commission on or before May 20, 1993. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on May 26, 1993, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by §§ 201.6(b)(2), 201.13(f), and 207.23(b) of the Commission's rules. Parties are strongly encouraged to submit as early in the investigation as possible any requests to present a portion of their hearing testimony *in camera*.

Written Submissions

Each party is encouraged to submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of § 207.22 of the Commission's rules; the deadline for filing is May 26, 1993. Parties may also file written testimony in connection with their presentation at the hearing, as provided in § 207.23(b) of the Commission's rules, and posthearing briefs, which must conform with the provisions of § 207.24 of the Commission's rules. The deadline for filing posthearing briefs is June 10, 1993; witness testimony must be filed no later than three (3) days before the hearing. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before June 10, 1993. All written submissions must conform with the provisions of § 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of §§ 201.8, 207.3, and 207.7 of the Commission's rules.

In accordance with §§ 201.16(c) and 207.3 of the rules, each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.20 of the Commission's rules.

By order of the Commission.

Issued: January 28, 1993.

Paul R. Berdes,

Acting Secretary.

[FR Doc. 93-2518 Filed 2-2-93; 8:45 am]

SELLING CODE 7000-00-01

FINAL DETERMINATION: We determined that certain alloy and carbon hot-rolled bars, rods, and certain semifinished products of special quality engineered steel (SBO) from Brazil are being, or are likely to be, sold in the United States at less than fair value, as provided in section 735 of the Tariff Act of 1930, as amended (the Act). The final margins are shown in the "Continuation of Suspension of Liquidation" section of this notice.

Case History

Since the affirmative preliminary determination of sales at less than fair value on January 11, 1993, (58 FR 3533, January 11, 1993), the following events have occurred: The postponement of Final Antidumping Duty Determination was published on February 12, 1993 (58 FR 8254, February 12, 1993).

Verification of Villares' Section A, B, and C questionnaire response was conducted from March 8 through 12, 1993 and verification of Section D was conducted from March 17 through 24, 1993.

Verification of ACOMINAS' Section A, B, and C questionnaire response was conducted from March 15 through 21, 1993 and verification of Section D was conducted from March 17 through 22, 1993.

The Sales Verification Report for both respondents was issued on April 14, 1993. The Cost Verification Report was issued on April 14 for Villares and April 16 for ACOMINAS. An addendum to the ACOMINAS sales verification report was issued on April 16 and a clarification of the Villares sales verification report was issued on April 19.

Comments concerning the verification reports and the preliminary determination were addressed in the case briefs from all interested parties on April 19 and 20. Rebuttal briefs were received on April 26 and the hearing was held on April 28, 1993.

Scope of Investigations

The products covered in these investigations are:

- Certain hot-finished alloy and carbon steel bars and rods of special bar quality engineered steel; and
- Certain semifinished steel products of special bar quality engineered steel.

The term "hot-finished alloy and carbon bars and rods of special bar quality engineered steel" covers certain hot-finished carbon and alloy (other than stainless steel, high-speed steel, silico-manganese steel, and tool steel) steel bars and rods, other than forged, which have a uniform solid cross-section along their whole length and are

DEPARTMENT OF COMMERCE

International Trade Administration

[A-351-813]

Final Determinations of Sales at Less Than Fair Value: Certain Alloy and Carbon Hot-Rolled Bars, Rods, and Semifinished Products of Special Bar Quality Engineered Steel From Brazil

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: June 3, 1993.

FOR FURTHER INFORMATION CONTACT: Cherie L. Rusnak, Will Sjoberg or Linda L. Pasden, Office of Agreements Compliance, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 482-3793.

in the shape of circles, segments of circles, ovals, rectangles, triangles, or other convex polygons, and do not conform to the definitions for semifinished steel, flat-rolled products, hot-rolled bars and rods in irregularly wound coils, reinforcing bars and rods, and wire. The subject bars and rods are of special bar quality engineered steel that are described in Society of Automotive Engineers (SAE) specifications J403, J404, J411, J1081, J1249, J1268, and modifications thereof, whether they be domestic or foreign specifications, of other than merchant quality grades M 1000 through M 1044, not containing by weight 0.03 percent or more of lead or 0.05 percent or more of bismuth, as classifiable under the following subheadings of the Harmonized Tariff Schedule of the United States (HTS): 7214.30.0000, 7214.40.0010, 7214.40.0030, 7214.40.0050, 7214.50.0010, 7214.50.0030, 7214.50.0050, 7214.60.0010, 7214.60.0030, 7214.60.0050, 7228.30.8005, and 7228.30.8050.

A clarification has been made for semifinished products of special bar quality engineered steel. The term "semifinished products of special bar quality engineered steel" covers certain alloy ingots (other than stainless steel, high-speed steel, silico-manganese steel, tool steel, and high-nickel alloy steel), and semifinished products of carbon and alloy (other than stainless steel, high-speed steel, silico-manganese steel, tool steel, and high-nickel alloy steel) steel, of circular or rectangular (including square) cross-section with a width measuring less than four times the thickness, which are continuous cast or have been subjected to no more than primary hot rolling, which possess a rough surface and do not meet the dimensional tolerances for bar products, of special bar quality engineered steel that are described in Society of Automotive Engineers (SAE) specifications J403, J404, J411, J1081, J1249, J1268, and modifications thereof, whether they be domestic or foreign specifications, not containing by weight 0.03 percent or more of lead or 0.05 percent or more of bismuth, as classifiable under the following subheadings of the Harmonized Tariff Schedule of the United States (HTS): 7207.11.0000, 7207.12.0010, 7207.19.0030, 7207.20.0025, 7207.20.0075, 7224.10.0075, 7224.90.0045, and 7224.90.0065.

Although the HTS subheadings are provided for convenience and Customs purposes, our written description of the scope of these proceedings is dispositive.

We determined in a decision memorandum of August 12, 1992, that the subject merchandise of these investigations constitutes two distinct classes or kinds: alloy and carbon hot-rolled bars and rods of special bar quality engineered steel, and semifinished products of special bar quality engineered steel.

In our August 12 decision memorandum, we noted that there are distinct differences in physical characteristics between semifinished products and hot-rolled bars and rods of special bar quality engineered steel. We explained that semifinished products possess a rougher surface and less exact dimensional tolerances than are specified for bar products, and are generally produced and sold for further hot-working, while hot-rolled bars and rods have smaller grains and a much smoother surface condition with few or no surface imperfections and have tolerances that are significantly more exacting than those for semifinished products. We also noted that semifinished products and hot-rolled bars and rods of special bar quality engineered steel have different ultimate uses, in that semifinished products are usually further hot-rolled by steel companies (although they are forged in a minority of instances), while hot-rolled bars and rods have numerous ultimate uses, including machining, forging, and hot- and cold-forming. We explained that the expectations of the ultimate purchasers of semifinished products and hot-rolled bars and rods of special bar quality engineered steel are different. Specifically, consumers of hot-rolled bars and rods expect a product which meets relatively exacting tolerances, while consumers of semifinished products do not require such exacting specifications. We pointed out that semifinished products and hot-rolled bars and rods of special bar quality engineered steel have different channels of trade, as most semifinished products are consumed internally by steelmakers and generally cannot be used by outside customers, while hot-rolled bars and rods are normally sold to outside customers who perform various operations on the product. Finally, we explained that semifinished products and hot-rolled bars and rods of special bar quality engineered steel are advertised differently, as semifinished products are not generally sold to outside customers and therefore are not generally advertised, while hot-rolled bars and rods generally are sold and advertised to producers of end-user products.

Period of Investigation

The period of investigation (POI) is January 1, 1992 through June 30, 1992.

Use of Best Information Available

We have determined, in accordance with section 776(c) of the Act, that the use of best information available (BIA) is appropriate for sales of certain alloy and carbon hot-rolled bars, rods and certain semifinished products from Brazil in these investigations. In deciding whether to use BIA, section 776(c) provides that the Department take into account whether the respondent was unable to produce information requested in a timely manner and in the form required, or otherwise significantly impeded an investigation. In this case, neither respondent provided sufficient information upon which the Department could base its final determinations.

Specifically, the Department found at verification that neither respondent Aco Minas Gerais S.A. (ACOMINAS) nor respondent Industrias Villares, S.A. (Villares) followed the Department's model match instructions (see Comments 5 and 9, respectively). The Department also found at verification that both respondents used an incorrect date of sale methodology for reporting U.S. transactions, and that ACOMINAS also used an incorrect date of sale methodology for reporting home market (HM) transactions (see Comment 8 regarding Villares and Comment 6 regarding ACOMINAS). Thus, the Department was unable to verify whether either company had reported the correct universe of sales for the period of investigation. Without the correct universe of sales, the Department is unable to revise the product concordance for ACOMINAS or for Villares.

Consequently, we have based our final determination in these investigations on BIA for both respondents. As BIA for ACOMINAS, we have used the preliminary determination rate, 19.67 percent, which was the average margin alleged in the petition for semifinished products. As noted in the preliminary determination, for Villares, we used an average of several margins alleged in the petition. However, for the final determination for Villares, we used an average of several margins from sales occurring in the same month, 27.00 percent (see Comment 10).

Verification

As provided in section 776(b) of the Act, we conducted verification of ACOMINAS and Villares.

Interested Party Comments**Petitioners' General Comments**

Comment 1: Petitioners claim that the scope definition in the final determination should be amended to reflect the distinctions made by the Department in its September 24, 1992 Decision Memorandum, which distinguished finished bars and rods from semifinished products. This will assure that Customs officials are clear as to the delineation between the two products and that no misclassification occurs.

Department's Position: Petitioners are correct in their assertion that the scope section of the final determination must clearly delineate between finished bars and rods and semifinished products. We have clarified the product definition for semifinished products to read that these are products: "which are continuous cast or have been subjected to no more than primary hot rolling, which possess a rough surface and do not meet the dimensional tolerances for bar products." This modification of the language in our Decision Memorandum dated September 24, 1992, sharpens that definition by limiting "semifinished" steel to that which has been continuous cast or subjected to no more than primary hot rolling (since further hot rolling can bring semifinished product into bar tolerance range). The Department also clarifies that products which do not meet bar tolerances will be classified as semifinished products. Finally, the Department rejects petitioner's suggestion that the scope definition include the phrase "which are produced and sold for rerolling." The Department has decided not to consider end-use as a scope criterion because past experience with end-use certification programs has proven them to be an administrative burden both to the Department and to U.S. Customs. These programs do not ensure that misclassification and/or circumvention will not occur. Furthermore, the limitations on production contained in this clarification to the scope definition adequately demarcate the outer parameters of what constitutes a semifinished product.

Comment 2: Petitioners claim that the Department's verification report addendum establishes that the products exported by ACOMINAS and classified as semifinished products were actually finished bars. This finding, according to petitioners, shows that the distinction between finished bars and rods and semifinished products is outmoded and not a viable basis for distinguishing a separate class or kind of merchandise. Thus, petitioners argue that the

Department should determine that there is but one class or kind, encompassing all SBQ bars and rods and semifinished products.

Department's Position: Petitioners are incorrect in stating that the Department's verification report indicated that ACOMINAS's exports to the U.S. were actually finished bars and not semifinished products. The report did state that the Department analyzed ACOMINAS' ability to meet certain bar tolerances and that some of ACOMINAS' exports met certain bar specifications. While some of ACOMINAS' exports met certain bar specifications, based on information gathered at verification, it is unknown whether the exports met all bar specifications. Meeting certain bar specifications (i.e., bar tolerances) does not mean that the respondents' products or any of its exports to the U.S. should be classified as finished bars and rods. Hence, ACOMINAS does have the ability to supply material to bar tolerances and is supplying such products (i.e., exports meeting certain bar specifications) to the market (see Comment 5). There are two separate classes or kinds of merchandise subject to investigation which are delineated by the criteria stated in our August 12, 1992 Decision Memorandum and set forth in the scope section of this notice.

ACOMINAS

Comment 3: ACOMINAS claims that while the petition was aimed at finished SBQ products, including those "that should be considered finished (i.e., with identical physical characteristics and the same end uses as finished products) but labeled semifinished," the Department incorrectly investigated both finished and semifinished products. ACOMINAS objects to the inclusion of semifinished products, claiming that semifinished products appear to be "an accidental by-product" of the petitioners' real concerns since the petition cited neither ACOMINAS nor its major U.S. customer. In addition, ACOMINAS claims that the petitioners have created an overbroad product scope definition and that petitioners do not have standing to include semifinished products. Thus, ACOMINAS requests that the Department exclude semifinished products from the scope and dismiss the entire investigation with respect to semifinished products.

Department's Position: ACOMINAS is incorrect in its claim that "truly semifinished" products were not intended to be within the scope of the petition but, rather were an "accidental by-product". "Semifinished" steel

products, as defined by the Department in its August 12, 1992 Decision Memorandum regarding class or kind, were included in the petition. The fact that numerous sales of merchandise to the U.S. classified under the HTS item numbers for semifinished products (which match the Department's definition of semifinished products) were included in the petition and listed under separate groupings indicates that petitioners did intend to include "truly semifinished" products in the scope of these investigations. In addition, a petition does not have to cite every foreign producer or every U.S. purchaser of products within a class or kind to be considered sufficient regarding the entire class or kind.

Furthermore, it is "undisputed that petitioners produce semifinished special quality carbon and alloy steel products" (see Memorandum to Joseph A. Spetrini, dated October 26, 1992) as defined by the Department, which is a like product to the semifinished billet exported to the U.S. by ACOMINAS. Thus, as producers of a like product, petitioners are interested parties within the meaning of section 771(9)(C) of the Act, and do have standing, under section 732(b)(1) of the Act, to include semifinished products in the petition. Therefore, we have included the semifinished billets exported by ACOMINAS in these investigations.

Comment 4: ACOMINAS objects to the Department's revised model match methodology with respect to difference in merchandise (DIFMER) adjustments. Specifically, ACOMINAS complains that the Department's "production in the month" requirement is substantively unnecessary, and that by allowing comparison of similar models only when there is production of a given model in the same month as both the U.S. sale and the home market sale of that model, the Department elevates DIFMERs above other adjustments and causes constructed value to be elevated over price-to-price comparisons. As an alternative, ACOMINAS suggests that the Department use the date of shipment as the date of sale (DOS) for both the U.S. and home market products. According to ACOMINAS, this would alleviate concerns about hyperinflation while preserving the statutory preference for the use of home market sale prices over constructed values.

ACOMINAS also states that the introduction of this new methodology in the middle of the case was unfair procedurally and caused complications, delays and confusion. Respondent claims that the Department should remedy this by using the prior, established methodology. Finally,

ACOMINAS claims that the Department violated its own regulations and acted in a manner contrary to law when it refused to allow ACOMINAS to submit third country sales.

Department's Position: The Department issued specific model match criteria to be used in these investigations in October 1992. In response to the comments received and the objections raised by the interested parties, the Department revised these instructions. These final instructions were issued on November 13, 1992. On November 20, 1992, the Department responded to two submissions from ACOMINAS, one containing clarifications requested on the revised methodology and the other granting an extension for the submission of the revised product concordance. ACOMINAS did not request any further clarifications or indicate to the Department that they would not be able to adhere to the extended response deadlines. Thus, ACOMINAS is incorrect in its claim of procedural unfairness.

Because ACOMINAS failed to follow the Department's instructions for matching U.S. products to home market products, contrary to statements provided in their questionnaire response (see Comment 5), the Department based its final determination on BIA, as required by section 776(c) of the Act. It is, therefore, not necessary to address the DIFMER calculation methodology the Department would have used had it been able to make appropriate price-to-price comparisons, including the Department's "production in the month" requirement, or the use of third country sales. Third country sales would have only been used in the event that the home market was not viable.

Comment 5: Petitioners claim that instead of following the Department's criteria to select its product matches, ACOMINAS used its own 28 digit internal product code. In addition, petitioners claim that ACOMINAS is "also (or primarily) a bar producer" and that all or most of ACOMINAS' reported sales are of bars, not semifinished products, based on the Department's findings at verification. Thus, petitioners claim that the Department should reject the company's response and use BIA in making its final determination.

ACOMINAS claims that its product concordance was done in accordance with the Department's instructions and objects to the fact that it was not until verification that the Department indicated to ACOMINAS that it did not agree with its model match

methodology. ACOMINAS also claims that the Department's instructions were not clear regarding the "chemistry" criterion, stating that it was not until verification that they realized the Department "intended a narrower definition" of chemistry than that which it reported. If anything, ACOMINAS claims that it "overreported" by providing more information than requested. Hence, the Department should either use the concordance as submitted or disregard the additional information ACOMINAS submitted and redo the concordance itself.

ACOMINAS also disputes the claim that the concordance was "too general" with respect to characteristics other than chemistry. ACOMINAS explained that it was providing the Department with a broader range of choices than those which ACOMINAS deemed most similar and claims that the Department should merely disregard any matches with which it does not agree.

Finally, ACOMINAS states that petitioners' claims that ACOMINAS "is also (or primarily) a bar producer" and that the verification report addendum supports their claim that there should be one class or kind are "preposterous." The correct conclusions, according to ACOMINAS, are that it primarily produces semifinished products which are properly included in the Department's semifinished class or kind, as defined in its August 12 and September 24, 1992 decision memoranda. Furthermore, ACOMINAS states that petitioners are wrong in claiming that all but 4.52 percent of ACOMINAS' product met bar specifications. Rather, these products met one bar specification, which does not make them a bar.

Department's Position: The Department agrees with petitioners that ACOMINAS used its own internal product code system, rather than the Department's hierarchy, in selecting its product matches. The Department instructed ACOMINAS to base its comparisons on the criteria specified in its questionnaire instructions. ACOMINAS initially stated that it matched U.S. and home market products based on the model match criteria provided by the Department, which it extracted from its own 28 digit code system. However, an analysis of the difference in merchandise (DIFMER) data indicated that matches were not based on model match criteria but rather on the entire internal code system. This code system was more explicit regarding certain characteristics and provided insufficient or no input regarding some of the Department's model match criteria. Thus, on one hand, differences

were found between products based on characteristics the Department did not intend to consider in its comparisons. On the other hand, ACOMINAS' product concordance methodology did not find DIFMERS based on all criteria that the Department determined most important in differentiating products.

Because ACOMINAS did not use our hierarchy of characteristics, the product comparisons and resulting DIFMERS they provided were not the same as those which the Department would have derived had we done the matching. Furthermore, the Department is not able to simply reconstruct the concordance using the proper criteria because the "chemistry" of each product was not provided as instructed (e.g., SAE, AISI, or equivalent).

It should also be noted that the Department was not aware that ACOMINAS had not followed its instructions regarding the model match until verification. The description provided by ACOMINAS in its questionnaire response regarding its DIFMER adjustments stated that "ACOMINAS followed the Department's product hierarchy in choosing the most similar merchandise." Thus, there was no way for the Department to know from ACOMINAS' response that its own internal code, rather than the Department's hierarchy, would be used for matching purposes. Therefore, we are rejecting ACOMINAS' product concordance for the final determination.

The Department agrees with ACOMINAS in its claim that it primarily produces semifinished products. We analyzed ACOMINAS' ability to produce products conforming to certain bar specifications at verification. While some of the products were found to meet specific bar specifications, the Department was unable to examine ACOMINAS' ability to meet all of the criteria. The Department did note in its verification report that ACOMINAS did have the ability to produce semifinished steel products to specific bar tolerances and is supplying them to the market. However, we did not state that ACOMINAS is "primarily" a bar producer or that the semifinished billets exported to the U.S. and under investigation should be included in the finished bars and rods category. Therefore, no changes will be made regarding the categorization of the ACOMINAS billets exported to the U.S. and included in these investigations.

Comment 6: Petitioners claim that the Department should disregard all HM transactions with dates of sale (DOS) post-dating their shipment dates because shipment before sale date is

contrary to the Department's questionnaire instructions. Also, it results in improper price-to-price comparisons since the HM and U.S. sales must be made in the same month in hyperinflationary economies.

Petitioners further claim that ACOMINAS reported the wrong DOS for U.S. sales in those instances when the DOS was reported as the date on which the base price and quantity were agreed to, rather than the date the final terms were agreed to. They further state that the U.S. DOS methodology is inconsistent with the HM reporting system. For HM sales, later modification dates are reported as the DOS, while for U.S. sales, the initial negotiation dates are reported as DOS. Hence, petitioners claim the "entire system is irreconcilable and will not produce consistent or comparable values" and should, therefore, be rejected in favor of BIA.

ACOMINAS claims that the unusual situation with home market Customer A, with whom ACOMINAS was operating under a long-term requirements contract, meant that ACOMINAS would receive and enter into its computer system the customer's forecasted monthly requirements, and then modify the system to conform with what it was able to produce and deliver. Thus, sale dates were generated which were after shipment since the computer system was updated after production and shipment. Further, ACOMINAS claims that there were only a "few isolated transactions," other than those to customer A, in which the reported sale date was after shipment. Therefore, except for sales to Customer A, the methodology used for selecting the HM dates of sale was effective.

Furthermore, ACOMINAS stated that it does not have a long-term contract with U.S. customer 100198, but rather that this is a longstanding customer of ACOMINAS. This long-term relationship meant that the prices of extras, terms, etc. were assumed and that only the quantity and price were negotiated. Therefore, ACOMINAS reported the date on which the base price and total quantity were agreed upon, rather than the date on which the specific product mix for a specific shipment was determined.

Department's Position: We agree with petitioners that all HM sales with dates of shipment predating date of sale were reported incorrectly. For Customer A, ACOMINAS should have reported the date of shipment if the final terms were not known until this point. The transactions other than those to Customer A with shipment date before sale date were also reported incorrectly.

A fundamental flaw in ACOMINAS' reporting system caused the date of sale to change any time a modification was made to its computer database, including minor corrections or dispute settlements, to the date the modification was made. Therefore, the reported dates of sale changed after the essential terms were set. This was contrary to ACOMINAS' questionnaire response, and was only discovered at verification.

We also agree that for U.S. sales, ACOMINAS incorrectly reported the date of the initial contract, rather than the date the final terms were agreed to. Thus, ACOMINAS' reporting methodology is both flawed and internally inconsistent.

Because of the date of sale problems, there is no way for the Department to know if the proper HM or U.S. sales universes have been reported and whether the reported sales have been compared to sales with a proper date of sale in the same month. As a result, the Department is unable to conduct a cost of production test on ACOMINAS' home market sales since we do not know what merchandise was sold during which months of the POI. We also do not have the corresponding cost of production data for any products which would have been reported had the correct dating procedures been used. Hence, we are unable to determine whether or not there were sufficient sales at or above the cost of production in the home market to conduct a price-to-price comparison.

Because ACOMINAS did not follow the Department's instructions for matching U.S. products to home market products (see Comment 5) and because of these date of sale problems, the Department is using BIA. Therefore, we are rejecting ACOMINAS' reported questionnaire response because it is unreliable and we are using the best information available.

Raritan

Comment 7: As an interested party and importer of semifinished billets from Brazil, Raritan supports the Department's determination that there are two separate classes or kinds of merchandise subject to investigation. However, Raritan claims that since Raritan was granted a short-supply exception for its imports during the period of Steel Voluntary Restraint Agreements (VRAs), the Department could "reasonably conclude" that the semifinished billet that they import is a unique class or kind and different from the semifinished products imported for bar applications.

Raritan also believes that the Department improperly initiated these

investigations regarding its imports. Raritan claims that: the petition lacked any allegation of sales at less-than-fair-value of the billet imported by Raritan or of any semifinished products, as now defined by the Department; semifinished products imported as an input for coiled wire rod production, an application which has been excluded from the petition, should also be excluded; and, petitioners do not have standing to include the semifinished billet imported by Raritan. Therefore, Raritan claims that the Department must rescind the investigation with respect to semifinished billets used in the production of coiled wire rod.

As an alternative, Raritan argues that the Department should implement an end-use certification process to limit any dumping order to those products imported for bar applications only. This would, according to Raritan, address any concerns of the petitioners or the Department regarding misclassification or circumvention and would place no undue burden on the Department or Customs.

Petitioners state that it is irrelevant whether or not Raritan's imports are destined for use in products which are outside the scope, as long as the imports themselves are within the petition's scope. Petitioners also refute Raritan's claim that the petitioners lack standing to include the ACOMINAS billets imported by Raritan because these billets constitute a separate class or kind of merchandise. According to petitioners, short supply determinations made during the VRAs (such as that allowing imports of semifinished products by Raritan) have nothing to do with constituting a class or kind of product. Rather, petitioners state that there are five criteria examined in determining class or kind and claim that the product imported by Raritan is not unique in any of these aspects.

Petitioners claim that they are producers of both classes of products, do have standing to file a petition regarding both classes, and have presented adequate LTFV allegations as to both classes or kinds of merchandise.

Finally, petitioners state that both bars and semifinished products were included in the original petition and that the Department determined that there were sufficient allegations concerning both, as noted in its June 29, 1992 Memorandum. In addition, petitioners claim that the inclusion of semifinished products in an investigation covering finished bars, regardless of whether there are sufficient allegations of LTFV margins on semifinished products, is reasonable if done to prevent circumvention of an

antidumping duty order. Thus, petitioners claim that the Department should reject Raritan's claims.

The Department's Position: The Department agrees with petitioners that Raritan has provided no evidence to support its claim that the semifinished billet it imports should be a separate class or kind from the other imports of such products and is, thus, incorrect in claiming that the Department could "reasonably conclude" that this product is unique.

Raritan is also incorrect in claiming that petitioners do not have a right to bring a petition including semifinished products. A petition does not have to cite every importer or every imported product within a class or kind to be considered sufficient regarding that entire class or kind. Further, the petition did in fact contain numerous allegations concerning sales of semifinished products, as now defined by the Department. These allegations were based on products classified under HTS item numbers specifically covering semifinished steel, and Customs' classification of semifinished steel under these item numbers is consistent with the Department's definition.

In addition, the Department determined in a Decision Memorandum dated August 12, 1992, that "it is irrelevant that certain imports of the subject merchandise can be used in the manufacture of a product, wire rod, which is outside of the scope" of an investigation. Thus, Raritan's suggested alternative of end-use certifications for semifinished products imported only for bar applications is not a consideration. And finally, as producers of a like product within the class or kind, petitioners do have standing to include the semifinished billets imported by Raritan (see Comment 3). Therefore, all imports of the subject merchandise, including those imported by Raritan, remain within the scope of these investigations.

Villares

Comment 5: The petitioners argue that Villares incorrectly matched its home market sales, citing the following reasons: (1) "because of lack of supporting documentation, Commerce was not able to verify that each universe of potential matches consisted of products produced in the same month;" (2) Villares admitted that they did not utilize the Department's production-in-the-month (PIM) requirement; (3) Villares' methodology in selecting home market products for which DIFMERs were less than 20 percent of the variable cost of manufacturing was unverifiable; (4) certain sales Villares claimed were

out of the ordinary course of trade were unilaterally excluded from the model match with no supporting documentation provided to bolster the claim; and, (5) the actual model match was conducted informally, rather than "on an explicit methodology, dependent on objective factors."

Villares responds to the lack of supporting documentation leading to the inability to verify the potential universe of matches by stating that at verification the Department never asked about, nor discussed, the production-in-the-month requirement.

Villares admits not taking this requirement into consideration because: "(1) the Department did not mandate the production in the month requirement until November 13, 1992, very late in the investigation and well after Villares had completed its model match methodology and decided the products sold in the home market were the most similar to the U.S. product, and (2) Villares does not believe that this requirement is valid under the law. Accordingly, to avoid having to redo completely its determination as to the most similar matches, and to preserve the record should the Department abandon this requirement, Villares simply indicated which products already included in the model match table satisfied the Department's production in the month requirement."

Villares' states that the petitioners "mischaracterize" the Department's verification report in terms of Villares' methodology in selecting products for which the DIFMERs were less than 20 percent. They refer to the statement in the verification that, "Villares employed its collective expertise in deciding whether the cost differences between two products was greater than 20 percent. No supporting documentation was offered because it would have been impossible to do so" (emphasis in the original).

Although Villares does not directly respond to the petitioners' claim that certain sales were unilaterally excluded from the model match, they do cite the Department's clarification to the verification report to the effect that documentation was provided to support the claim that certain sales were out of the ordinary course of trade.

Finally, Villares argues that its model match methodology was based "explicitly" both on the Department's criteria and on the Department's requirement that only home market sales within the same month as the U.S. sale be selected.

Department's Position: The Department determined that Villares model matches were subjective because

of the lack of supporting documentation. Based on the subjective nature of Villares' model matching methodology, the lack of supporting documentation relating to DIFMER adjustments and the fact that the Department is unsure as to whether Villares reported the correct universe of U.S. sales, we have determined that the matches provided by Villares cannot be relied upon. Since, as discussed below, this data cannot be corrected, the Department must use the BIA for our analysis.

Each of the petitioners' comments and respondent's rebuttals will be addressed in greater detail below. Because of the close relationship between petitioners' third and fifth issues, they will be addressed as one.

Model Match

Villares is correct when they state the Department never asked about the production-in-the-month requirement at verification.

Because the Department has determined to use the BIA based on factors not related to the "production in the month" requirement, it is not necessary to address the issue of PIM.

It is clear from the verification report that the Department could not verify Villares' standards used in their selection of home market products to match with their U.S. sales. As noted in the verification report, Villares used a computer to narrow the products into separate families of chemistry grades and then used the "collective expertise" of its staff to choose matches. Villares should have also used a verifiable methodology to differentiate the products based on DIFMERs. Further, Villares was notified in advance of verification that the Department would verify the basis of their model match methodology. In the absence of an objective standard under which to verify its home market selections, the Department must choose (1) between allowing Villares to devise their own product concordance with no oversight or verification by the Department or (2) rejecting Villares model matches and resort to BIA.

In *Timken Co. v. United States*, 636 F.Supp. 1327, 1337 (CFT 1986) (*Timken*), the Court of International Trade (the Court) did not question whether the subject merchandise the respondent claimed as "similar" might in fact have been similar under the statutory definition, instead questioning whether the selection was the most similar under the Department's model matching criteria (emphasis added). "By failing to collect home market sales data on [subject merchandise] other than

those characterized by [respondent] as similar or identical, the [Department] abdicated to [respondent] its statutory responsibility for determining what [subject merchandise] produced by respondent was the most similar to models sold in the United States" (*Timken* at 1338). Furthermore, the Court stated that, "[a]dditionally, it is hard to imagine that a foreign manufacturer, given the option of selecting what constitutes similar merchandise, and assuming that there exists more than one product from which a choice can be made, would not make the choice of merchandise most advantageous to itself" (*Timken* at 1338). In a footnote, the Court states that they do not mean to imply (nor does the Department in this instance) that the respondent acted in bad faith but instead that the ITA erred in not requesting complete data where that data was necessary. The Court went on to say that " * * * by accepting a foreign manufacturer's assertion as to what constitutes most similar merchandise without obtaining the complete data needed to determine the appropriateness of those assertions, the [Department] in this action violated the spirit of the statutory requirement that it verify the data relied upon in proceedings involving revocation of antidumping orders" (*Timken* at 1338). While the current situation is an antidumping duty investigation and not a revocation proceeding, the two situations are analogous.

In the current investigations, the Department has fulfilled the requirement of requesting the necessary data. In the Department's questionnaire in Appendix V, Villares is given the option of providing DIFMER data (*i.e.*, variable cost data) for all products in the product concordance in case the Department does not agree that the selected model match is the "most similar" to the U.S. product. Additionally, since Villares itself had stated in its rebuttal brief that it would have been "impossible" to provide documentation supporting its home market selections in terms of DIFMER calculations, the Department cannot be expected to verify data which Villares admits is "impossible" to produce.

While the Department does not argue with the fact that documentation related to Villares' sales not in the ordinary course of trade was provided at verification, it is not necessary to address this issue since the Department has determined to use BIA for reasons explained above.

Date of Sale

In addition to the model match issues noted by the petitioner in their case brief, the Department cannot be sure that it has the correct universe of U.S. sales for comparison purposes. Appendix II of the Department's questionnaire states: "date of sale is typically the purchase order date, the contract date, or where written confirmation is given, the order confirmation date (*i.e.*, the point in the transaction where the basic terms of the contract, particularly price and quantity, are agreed to by the parties involved.)" Despite the fact that the Department specifically lists the purchase order (P.O.) data as a potential DOS for investigatory purposes, the Department's questionnaire further states that such a date is considered the DOS when both price and quantity are agreed to by the parties involved. Villares stated on page 10 of its April 19, 1993, case brief that, "the date of sale methodology required by the Department dictated that Villares utilize purchase order dates to determine the universe of U.S. sales" (emphasis added).

The Department does not agree with Villares' characterization that Commerce "dictated" that Villares utilize P.O. date for DOS purposes. The P.O. is the correct DOS when—and only when—it is the date at which the essential terms were definitely agreed upon. At verification, the Department found that essential terms change subsequent to the P.O. date. Given that Villares admitted to having a two-to-three month production cycle, the Department was unable to verify that the P.O. dates submitted by Villares did in fact correspond to the actual sale dates under the Department's methodology. Accordingly, the U.S. dates of sale were misrepresented.

Comment 9: Villares argues that the Department issued a scope clarification memo on August 8, 1992, three weeks before the Department's Section A questionnaire response was due, failed to provide adequate notice to Villares on how to develop adjustments for similar merchandise and how to define its "replacement cost" methodology, claiming that these actions made it "extraordinarily difficult" to prepare an "adequate and timely response."

Department's Position: The Department's goal in antidumping and countervailing duty cases is to use the most accurate information on the record in arriving at a determination. In pursuit of this goal, the Department must often request additional, or even different information than that originally

requested from the parties to the investigation. Section 353.31(b)(3) of the Department's regulations permits a recipient of such a request for information to, in turn, request a deadline extension. Villares availed themselves of this option when, on August 25, 1992, they requested a deadline extension related to their response to Section A of the Department's questionnaire. On September 3, 1992, Villares submitted this response without requesting a further deadline extension as they did in the case of their Sections B and C questionnaire response. Villares was notified on November 13, 1992, in regard to the Department's PIM requirement. This notification was over three weeks before Villares submitted its next product concordance and no deadline extension was requested related to the submission. Moreover, if Villares believed that either DIFMER instructions or the Department's replacement cost methodology instructions were unclear, it is Villares who must notify the Department and request further clarification.

Comment 10: Villares alleges that the SBQ petition should be rescinded because the dumping allegations for hot-rolled SBQ bar as set forth did not adhere to the Commerce Department's methodology for hyper-inflationary economies. Villares states that at the time the petition was filed, "it was common knowledge that Brazil's economy was experiencing hyper-inflation, as defined by the Department." Villares argues that despite the Department's general practice of combining home market sales within a ninety-day period, "in antidumping investigations involving hyper-inflationary economies the Department only compare home market sales and U.S. sales within the same month."

The petitioners note that the petition contains "numerous allegations of contemporaneous comparisons showing LTFV sales" and that Villares fails to provide support for the proposition that a few allegations are insufficient for initiating an antidumping duty investigation.

The Department's Position: The petition satisfies the Department's initiation standards relating to a hyper-inflationary economy.

Section 353.13 of the Department's regulations states that a sufficient petition must be based on "information reasonably available to petitioner supporting the allegations." In addition to the sales on which the initiation was based, the petition also alleged other less recent, but more clearly

simultaneous sales (see, e.g., Petitioners' June 19, 1992 amendment to the petition, letter, Attachment 1, page 19, the first allegation, Finished, round, under 0.25% carbon (HTS 7214400030) and first 2 allegations for Finished, round, 0.25% to 0.6% carbon (HTS 7214500030)). Here, July 1991 home market sales are compared to other July 1991 U.S. sales, and August 1991 home market sales are compared to August 1991 U.S. sales. The final margin for finished bars and rods is based on sales occurring in the same month.

Continuation of Suspension of Liquidation

In accordance with section 733 of the Act, we are directing the Customs Service to continue to suspend liquidation of all entries of certain alloy and carbon hot-rolled bars, rods, and semifinished products of special quality engineered steel from Brazil that are entered, or withdrawn from warehouse, for consumption on or after the date of publication of this notice in the Federal Register. The Customs Service shall require a cash deposit or posting of a bond equal to the estimated final dumping margins, as shown below. This suspension of liquidation will remain in effect until further notice.

Producer/manufacturer/exporter	Margin percentage
Semifinished Products:	
Aco Minas Gerais S.A.	19.67
All Others	19.67
Finished Bars and Rods:	
Industrias Villares S.A. and its related companies	27.00
All Others	27.00

ITC Notification

In accordance with section 735(d) of the Act, we have notified the International Trade Commission (ITC) of our determination. As our final determination is affirmative, the ITC will determine whether these imports are materially injuring, or threaten material injury to the U.S. industry within 45 days.

This notice also serves as a reminder to parties subject to administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 353.34(d). Timely written notification of return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

This determination is published pursuant to section 735(d) of the Act (19

U.S.C. 1673d(d)) and 19 CFR 353.20(a)(4).

Dated: May 26, 1993.

Joseph A. Spetrini,
Acting Assistant Secretary for Import Administration.

[FR Doc. 93-13063 Filed 6-2-93; 8:45 am]

BILLING CODE 3510-02-0

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APPENDIX B

LIST OF WITNESSES APPEARING AT THE HEARING

CALENDAR OF PUBLIC HEARING

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

**Subject: CERTAIN SPECIAL QUALITY CARBON AND ALLOY
HOT-ROLLED STEEL BARS AND SEMIFINISHED
PRODUCTS FROM BRAZIL**

Inv. No.: 731-TA-572 (Final)

Date and Time: June 2, 1993 - 9:30 a.m.

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

OPENING REMARKS

Petitioner

Respondent

In support of Imposition of
Antidumping Duties:

**Stewart & Stewart
Washington, D.C.
On behalf of**

Republic Engineered Steels, Incorporated

**Russell W. Maier, President
and Chief Executive Officer**

**Harold V. Kelly, Vice President
and General Counsel**

Ed Hyde, General Manager, Sales

John Sears, Controller

**Barry M. Glasgal, General Manager,
Technical Development**

The Timken Company

**Charles H. West, President
and Executive Vice President of Steel**

**Larry R. Brown, Vice President
and General Counsel**

**In support of Imposition of
Antidumping Duties:--continued**

**Scott A. Scherff, Director, Legal Services
and Assistant Secretary**

Paul J. Guilfoyle, General Manager, Sales-Steel

**Michael K. Haidet, Manager,
Market Research and Trade Relations**

**James D. Holderbaum, Director, Order Management
and Business Economics**

**George T. Matthews, General Manager,
Metallurgical Quality Assurance-Steel**

**Eugene L. Stewart)
James R. Cannon, Jr.)--OF COUNSEL
Geert De Prest)
Margaret L.H. Png)**

**In Opposition to the Imposition of
Antidumping Duties:**

**Jeffrey W. Carr, Esq.
Washington, D.C.
On behalf of**

Co-Steel Raritan

Ed M. Calanog, P

Robert L. Randall, Manager, Product Metallurgy

Jeffrey W. Carr)--OF COUNSEL

**Baker and McKenzie
Washington, D.C.
On behalf of**

Aco Minas Gerais S.A.

**Edward Baker, Sales Manager,
Ferrostaal Metals Corporation**

B. Thomas Peele III)--OF COUNSEL

**In Opposition to the Imposition of
Antidumping Duties:--continued**

**Willkie Farr & Gallagher
Washington, D.C.
On behalf of**

Acos Villares S.A.

Companhia Acos Especiais Itabira (ACESITA)

Mannesmann, S.A.

**Glen Sulpizio, Principal Buyer,
Eaton Corporation**

**Len Luscomb, Buyer,
Norris Cylinder Company**

**Ed Baker, Vice President,
Ferrostaal Metals Corporation**

**Tom Ernst, President,
Villares Corporation of America**

Nathan Associates, Economic Consultants

**John Reily, Vice President
Lance Graef, Vice President**

**William H. Barringer)
Daniel L. Porter)--OF COUNSEL
Robert H. Edwards, Jr.)**

APPENDIX C

GLOSSARY AND STEELMAKING TERMINOLOGY

GLOSSARY AND STEELMAKING TERMINOLOGY

Capped steels.--Capped steels are somewhat similar to rimmed steels, except that the rimming action is stopped at a specified point during the solidification process. A capped steel ingot has the low-carbon rim typical of a rimmed steel ingot, but the uniformity of composition and mechanical properties in the center that might be expected from a killed steel ingot. This combination of properties makes capped steels particularly well suited for applications involving cold forming or cold heading.

Carbon steel.--Carbon steel means all nonalloy steel which is usefully malleable and contains 2 percent or less carbon. In addition, any steel classified as other alloy steel solely because it contains 0.4 percent or more by weight of lead and/or 0.1 percent or more by weight of bismuth, is classified as being of carbon steel for purposes of this investigation.

Certain alloy steel.--Alloy steel other than stainless steel, high-speed steel, silico-manganese steel, or tool steel.

Cold heading.--Cold heading or cold forming is a forging process in which force, developed by blows of a mechanical hammer or heading tool, is used to displace or upset a portion of a blank to form a section of different contour or configuration. Although this process has the advantage of being able to process pieces more quickly than machining, increasing work volume and reducing processing costs, it is unable to duplicate the precision and fine tolerances produced by machining.

Creep.--Slow deformation of steel under continued stress.

Fatigue.--Failure under repeated stress.

Killed steels.--Killed steels are produced by adding deoxidizing elements such as silicon and aluminum to the ladle before pouring. Chemical composition and mechanical properties of killed steels are relatively uniform throughout the ingot. Alloy and carbon steels containing more than about 0.25 percent carbon are almost always fully killed.

Machinability.--Machinability is that combination of properties in a material that affects its response to removal by a cutting tool. The machining of a steel may be enhanced by additives, such as lead, bismuth, selenium, tellurium, sulphur, phosphorus, or calcium, to the steel at its liquid phase. Or, for certain types of steel, machinability may be enhanced by annealing.¹

Machinability depends upon the dynamic reactions which occur in the workpiece material (including its chemical and metallurgical compositions), the machine tool, the tool's geometry, the lubricant employed, and operating conditions. Among other items, tool life, the rate of metal removal, surface finish, ease of chip removal, and the reduction of cutting forces are important criteria for evaluating a steel's machinability.²

¹ See, United States Steel, The Making, Shaping, and Treating of Steel, pp. 1465-1488.

² Debanshu Bhattacharya, "Machinability of Steel," Journal of Metals, Mar. 1987, p. 32.

Additions of lead, in combination with selenium or tellurium, or bismuth significantly improve machinability, and these grades are most often used when the part that is to be made requires the removal of relatively large amounts of metal (greater than 30 percent, for example, according to one estimate).³ They are most often specified when the machine to be utilized is an automatic screw machine, lathe, or drill press.⁴ As indicated earlier, there are other types of additions, most of which are made at the ladle, including calcium, phosphorus, and sulphur, which also affect the machinability of the steel. Calcium is used to minimize the detrimental effect of alumina inclusions on some carbide tools; it assists castability and is often used in applications calling for casting parts to near net shape.

Merchant bar quality.⁵--This group is designated with the prefix M before the 1000 series (for example, M1010, a merchant low-carbon bar of the nonresulphurized series for forging). Steels in this group are known as merchant steels; the bar and rod category includes concrete reinforcing bar. They are used for structural and similar applications involving moderate cold bending, moderate hot forming, punching, and welding as used in the production of noncritical parts. They are characterized by wider physical and chemical tolerances and are produced to grade only. Merchant quality is produced to 0.50 percent maximum carbon, 0.60 percent maximum manganese, nonresulphurized, nonleaded, 0.04 percent maximum phosphorus, and 0.05 percent maximum sulfur content, i.e., standard chemical ranges and limits, used for special carbon grades, do not apply. Merchant quality bars are not produced to any specified silicon content, grain size, or other requirement that would influence the type of steel, and they may contain pronounced chemical segregation; internal porosity, surface seams, and other surface irregularities may also be present.

Rimmed steels.--Rimmed steels are cast into ingots without deoxidation by silicon or aluminum, i.e., they are not killed. As solidification proceeds, oxygen and carbon dissolved in the molten metal continue to combine, producing a characteristic effervescent action in the ingot during solidification. Chemical composition and mechanical properties vary widely throughout rimmed steel ingots, with the region near the surface being lower in carbon, sulfur and phosphorus than the average composition of the ingot. The low carbon skin generally provides a smoother surface than might be expected on a fully killed steel, although high-quality surfaces can routinely be obtained on killed steel products. Only low-carbon steels are made as rimmed steels.

Special bar quality.⁶--This group includes bars and rods that are produced to customer order and are characterized by tighter surface and chemical tolerances than M-quality steels. Applications include forging, heat treating, cold drawing, machining, and many structural uses. The primary melting may incorporate separate degassing or refining and may be followed by secondary melting (vacuum arc remelting or electroslag remelting); deoxidification is performed. The steel is produced with internal soundness, i.e., relative freedom from segregation and porosity, grain size tolerances,

³ Staff interview with ***.

⁴ Ibid.

⁵ ASTM Designation A 575-81, Standard Specification for Steel Bars, Carbon, Merchant Quality, M-Grades.

⁶ ASTM Designation A 576-81, Standard Specification for Steel Bars, Carbon, Hot-wrought, Special Quality.

and limits on the content of incidental chemical elements (e.g., copper, nickel, chromium, molybdenum, or others) are restrictive, i.e., not exceeding the limits shown on the customer's purchase order. A tight range for chemical composition is prescribed for carbon, manganese, phosphorus, and sulfur.

Steel series.--Carbon, certain alloy, and alloy steels are categorized according to their chemical content. The primary elements that are specified are carbon, manganese, phosphorus, and sulphur for carbon steels (other elements such as copper and silicon are specified in terms of maximum allowable levels); and, these elements plus nickel, chromium, and molybdenum for alloy steels. Carbon steel grades include the 1000, 1100, 1200, and 1500 series (see further description below). Alloy steel grades include the 1300, 4000, 4100, 4300, 4400, 4600, 4700, 4800, 5000, 5100, 5200, 6100, 8100, 8600, 9200, and 9300 series.

The primary series for carbon steels, including special bar quality, are shown in the following tabulation:

<u>Grade</u>	<u>Comment</u>
1000.....	Non-resulphurized carbon steels with a manganese content not exceeding 1.00 percent; used for forging axles, casings, shafting applications, and cold-heading applications (e.g., production of screws, nuts, and bolts). Termed a non-free cutting steel. Lead is added to enhance machinability such as in production of small fins and threads.
1100.....	Resulphurized carbon steels; used in forging applications where strength is needed (e.g., connecting rods and nuts); termed a free-cutting steel.
1200.....	Free-cutting resulphurized and rephosphorized carbon steels; not load-bearing; includes the bulk of lead and bismuth steels for use in such applications as valves and hydraulic fittings.
1500.....	Carbon steels with a manganese content exceeding 1.00 percent; lead or bismuth seldom added. Calcium may be added to ameliorate effects of alumina inclusions on high-speed tool steels.

Toughness.--A property that denotes an intermediate value between softness and brittleness. Tensile tests show a tough material to have a fairly high tensile strength accompanied by moderate values of elongation and reduction of area.

APPENDIX D

QUESTIONNAIRE COMMENTS ON MANUFACTURING PROCESSES

QUESTIONNAIRE COMMENTS ON MANUFACTURING PROCESSES

The Commission's questionnaires in this investigation requested comments regarding the differences and similarities in the manufacturing processes used in the production of certain semifinished and hot-rolled products. The following comments were received:

A) Special quality FREE-MACHINING SEMIFINISHED products vs. OTHER SPECIAL QUALITY SEMIFINISHED products:

<u>Firm</u>	<u>Comments</u>
***	<p>"Manufacturing processes and equipment are the same and require a substantial capital investment for specialized pollution control equipment and worker protection equipment as mandated by the DER, EPA, and OSHA.</p> <p>Special testing procedures are needed to ensure proper quality. Atomic absorption test is necessary to check lead concentration of sample cores in certain free-machining steels.</p> <p>Specialized equipment for free-machining steels as a capital expense and ongoing operating expenses are generally not required for other special bar quality. Yield is higher for special bar quality because of lower reject rate."</p>
***	<p>"*** is unable to produce semifinished lead and free-machining steel billets, because we lack necessary environmental controls for leaded steels and our caster cross-section is too small to produce acceptable free-machining steels. ***.</p> <p>The term 'special quality' in the steel industry applies exclusively to bars. ***."</p>
***	<p>"No difference in manufacturing process, we use the same machinery and people."</p>
***	<p>"Same processes, equipment, and labor."</p>
***	<p>"The same machinery, equipment, and skills are required for the manufacture of special quality semifinished free machining products vs. semifinished other special quality products. Free machining products, however, do require more care in the selection of the casting process; i.e., to maximize final product yields, free machining products require bottom pour ingot casting or bloom continuous casting to optimize surface quality. The surface quality of other special quality semifinished products is similarly enhanced by bottom pour ingot casting or bloom continuous casting, but are also better adaptable to the top pour ingot casting process than are the free machining grades."</p>

*** "Free-machining leaded steels require lead injection and special extensive testing. All free-machining steels also can have lower yields and require special practices in rolling.

There are fundamental differences in the production of free-machining steels and other SBQ. 'Clean' steelmaking is used to produce other SBQ, such as desulphurizing molten iron for non-free-machining steel at dedicated stations prior to charging into a furnace in order to minimize inclusions.... Free-machining steels not only bypass this process, but they are treated to make more inclusions through addition of sulfur at the capped argon bubbling station or ladle metallurgy station and/or lead at the point of casting.

In addition, with the exception of some 1100 grades, *** cannot continuously cast free-machining steels into billets on a commercial basis. A few companies have attempted to billet cast non-lead 1215, but have been unable to sustain their presence in the market because of poor machinability and continuous casting or rolling difficulties. In addition, producers of continuously cast products change tundishes to produce free-machining steel. It is possible to change between grades of non-free machining SBQ without changing tundishes.

Both sulfur and lead additions to free-machining steel have a negative effect on the surface quality of the billets. As a result, extra conditioning is required. In addition, non-leaded free-machining steels are more difficult to roll than other SBQ. Leaded free-machining steels are the most difficult to roll."

B) Special quality FREE-MACHINING HOT-ROLLED products vs. OTHER SPECIAL QUALITY HOT-ROLLED products:

Firm Comments

*** "Special testing procedures are needed to ensure proper quality. Atomic absorption test checks lead concentration of sample cores in certain free-machining steels.

Manufacturing is similar to (A), except capital costs and operating expenses are required through the bar finishing mills. A pressurized pulpit, special lead gear, and frequent check ups protect working/environmental safety.

Free machining bars often split in rolling, causing them to catch in the rollers and creating cobbles that cause significant downtime in the rolling mill to remove faulty product and increase yield loss.

Yield is higher for other special quality hot-rolled products than for free-machining products. Less cobbling

and splitting, fewer surface defects. Less testing is necessary, reject rate is lower.

Specialized equipment for free-machining grades as a capital expense and ongoing operating expenses is not required for other special bar quality. Yield is higher for special bar quality because of lower reject rate."

*** "Free machining requires special control of air quality during the manufacturing process."

*** "Certain grades of free machining products require additional practices, equipment and environmental considerations."

***¹ Lead/bismuth free-machining products.--"Pb/Bi steels have a distinct production process that begins in the melt shop. Normally steel is tapped from the ladle into a normal tundish. However, for Pb/Bi steels, ***. Unlike other additives, lead and bismuth are not added when the steel is tapped from the furnace or at the ladle metallurgy station, but ***, a practice that requires a dedicated lead injector.

* * * * *

***. The temperatures at which we soak Pb/Bi steels are higher than for basic steels. Thus, producing leaded steels both consumes more energy and causes greater damage to the furnace, resulting in increased energy and maintenance costs.

First, we check the lead or bismuth billet carefully for surface defects, such as cracking, checking (surface melting), and tearing (pulling apart of the surface). If necessary, we grind the billet, under special environmental controls, on dedicated Pb/Bi grinding equipment with an abrasive steel wheel to remove the imperfections. We then reheat the billet to a specified temperature and roll it into a finished bar product. We use *** to reduce the potential for the end of the bar to split, which happens more frequently with Pb/Bi steels than with other SBQ. Special protection reduces, but does not eliminate the problem. Splitting causes a clog in the rolling mill that can cause fatalities, destroy equipment, and ruin the

¹ *** referred the Commission to its comments in Inv. Nos. 701-TA-314-317 and 731-TA-552-555 (Final), Certain Hot-Rolled Lead and Bismuth Carbon Steel Products from Brazil, France, Germany, and the United Kingdom. In this investigation, producers were asked to comment on the following categories: lead and bismuth free-machining steels, non-lead and bismuth free-machining steels, and other special quality steels. ***'s reported comments reflect their responses under all three categories. Producers were not asked to comment on semifinished products in the earlier investigations.

product. Repairing the damage causes considerable down time and expense.

After rolling, the finished bar is inspected yet again to make sure there are no imperfections. At this stage, the product is so thin that grinding will destroy it. Therefore, if we find flaws, we must scrap the product.

This entire process is subject to heavy environmental regulation. Injection, casting, and rolling all require special ventilation equipment, such as ventilation hoods and pressurized work areas. Workers must wear respirators and follow special health maintenance procedures. We dispose of many of the dedicated lead production items as hazardous waste, including lead-dedicated tundish linings, control rods, refractory bricks, and dedicated grinding wheels.

In addition, the EPA recently announced new, stronger regulations for lead exposure that will require additional protection, including new baghouses that cost \$1 million each. ***."

Non-lead/bismuth free-machining products.--"Sulfur is added to these steels to enhance machinability. First, we sort the scrap and charge the furnace with high-sulfur scrap. We further increase sulfur levels by adding bulk sulfur when tapping the furnace. At the ladle metallurgy station the chemical content is analyzed. Sulfur wire is added to bring the sulfur levels up to required levels.

* * * * *

Special quality carbon steel products of the 11xx and 12xx series do not require a specialized tundish or dedicated injector, are much less sensitive to rolling temperature and speed, and less prone to surface defects than lead and bismuth semifinished products, making them easier and cheaper to produce. Most 11xx grades can also be produced on a billet caster. The period and temperature of the soak and rolling speed for the billet are not as carefully controlled. FM steels of all grades cause more damage to rollers than do basic steels, which increases production costs. Because the defect rate is lower, 11xx and 12xx base grades do not require the same degree of testing and defect removal as lead and bismuth steels."

Other special quality.--"Steel bars of the 10xx series (other special quality hot-rolled products) are usually continuously cast directly into billets, rather than cast into blooms and then rolled into billets. They do not require a special tundish or dedicated injector. We sort scrap to ensure use of low-sulfur material and follow special sulfur minimization practices. The defect rate is much lower than either lead or 11xx/12xx products, removing the need for exhaustive testing.

We use special equipment to remove naturally occurring sulfur from raw iron charged into the basic oxygen furnace. We also sort scrap for both electric and BOF processes to use only low-sulfur scrap to make non-FM steel.

Bars of the 10xx series are almost completely free from cracking, tearing, checking, and splitting during rolling because they are not as sensitive to temperature variability as free-machining grades. They are rolled at lower temperatures than FM steels and, therefore, cause less damage to the furnace and rollers. They require substantially less monitoring and testing than lead and bismuth products and other 11xx and 12xx steels. They do not require the strict environmental controls applicable to lead products."

*** See comments under (A).

*** "Same processes, equipment, and labor."

*** "The production process utilizes the same labor force for both types of products. However, free machining products require inputs not found in other special products including sulphur, phosphorous, lead and/or bismuth, and the overall chemistry must be controlled much tighter for free machining products. These additional inputs are for the sole purpose of greatly enhancing machinability. The production equipment are also the same except that the free machining products, except resulphurized product, require elaborate environmental evacuation systems, collecting into very expensive containers and shipping to one of only a few (distant) approved disposal sites. Further, leaded products require special safety equipment be worn by all employees involved in the direct production and these employees must also be tested frequently for lead poisoning."

*** "The same machinery, equipment, and skills are required for the manufacture of special quality free machining hot-rolled products vs. other special quality hot-rolled products. In order to maximize final product yields in the case of free machining steels, more care must be taken in the selection of the casting process since these steels generally exhibit more surface-related defects. For example, bottom pour ingotmaking and continuous casting are more suitable for the production of the free machining grades than would be top poured ingot casting. By contrast, the surface quality of other special quality hot-rolled products may be less affected by the top pour ingotmaking process.

Industry recognizes the need to allow for the greater amount of surface defects present on the surfaces of hot rolled free machining products, carbon or alloy, versus other special quality carbon or alloy by specifying a greater minimum machining allowance per side in the case of

resulphurized steels (one form of free machining steel) than recommended for the nonresulphurized steels. (See AISI Steel Products Manual--alloy, carbon and high strength low alloy steels:--1977, Table 5-1)."

*** See comments under (A).

APPENDIX E
QUESTIONNAIRE COMMENTS ON PHYSICAL/METALLURGICAL
CHARACTERISTICS

**QUESTIONNAIRE COMMENTS ON PHYSICAL/METALLURGICAL
CHARACTERISTICS**

The Commission's questionnaires in this investigation requested comments regarding the differences and similarities in the physical/metallurgical characteristics of certain semifinished and hot-rolled products. The following comments were received:

A) Special quality FREE-MACHINING SEMIFINISHED products vs. OTHER SPECIAL QUALITY SEMIFINISHED products:

<u>Firm</u>	<u>Comments</u>
***	"Free machining semifinished has poorer surface quality than other special quality. Free machining semifinished used to re-roll into free machining bar/rod products. Other special quality semifinished products are re-rolled into bar products or are used as stock for forging various items."
***	"Free machining steels require additional practices during melting, casting, and rolling. There can be additional equipment requirements to guarantee castability and rolling success. Free machining steels are inherently dirty (internally) and act very differently when compared to other special quality steels. (Uses are) machining and cold finish applications vs. wide application range from forgings to cold finish."
***	"Free-machining grades contain elevated sulfur content and may have lead, bismuth or other additions not used in other special quality semifinished products. Uses: machining applications with little or no cold forming."
***	"We use additions of sulfur, calcium, phosphorous only to aid machinability. Used for big driveline yokes."
***	"No difference in physical characteristics. 1100/1200 series steels have higher sulfur/phosphorus levels. 1100/1200 steels are used for machined parts."
***	"The physical characteristics of special quality semifinished free machining products may be exactly the same as semifinished other special quality products; that is, both may be ordered in a variety of sizes and surface conditions, e.g., hot rolled, ground all over, machine scarfed, etc. Both semifinished products are used by other steel mills to be rerolled into steel bar or rod products."
***	"Free-machining have much higher sulfur contents as well as lead or other machining additives such as bismuth. Both are used for re-rolling into bars or rods, but the end uses of the bars or rods would be different. The leaded products would be used for extensively machined products."

B) Special quality FREE-MACHINING HOT-ROLLED products vs. OTHER SPECIAL QUALITY HOT-ROLLED products:

<u>Firm</u>	<u>Comments</u>
***	<p>"Free-machining steels are much more machinable than other steels. Chip formation and lubricity are better, which allows higher speeds and feeds through machining equipment, less tool wear, and improved productivity. Free-machining steels are used by screw machine shops to produce high tolerance, highly machined parts. These steels are a highly engineered, specialized product. They have detrimental characteristics that make it bad for extruding, cold heading, or forging.</p> <p>Other special quality is not as machinable as free-machining steels. Chips are larger and tend to clog machinery, speed and feed rates are lower, productivity much lower and tool wear much higher. Overall quality of the finished part is normally lower than with free-machining steels. Other special quality is used when less machining is possible. Bars in the 1100 series may be subject to cold heading and occasionally forging."</p>
***	"Extra control of heating practices is required for free machining products."
***	See comments under (A).
*** ¹	<p><u>Lead and bismuth products</u>.--"Pb/Bi products are almost identical. Both contain lead or bismuth particles that typically adhere to sulfide inclusions in the steel, causing the sulfide inclusions to remain round, the best shape for machining. At the microscopic level, they are prone to "microcracking," the formation of tiny cracks, when machined.</p> <p>Two physical characteristics cause this phenomenon. First, the interface between the lead or bismuth inclusions and the steel lattice is extremely weak, and so cracks easily. Second, lead and bismuth melt at a much lower temperature than steel. The friction heat generated in cutting will cause them to melt, further weakening the steel structure and making it easier to cut, a phenomenon known as liquid metal embrittlement.</p>

¹ *** referred the Commission to its comments in Inv. Nos. 701-TA-314-317 and 731-TA-552-555 (Final), Certain Hot-Rolled Lead and Bismuth Carbon Steel Products from Brazil, France, Germany, and the United Kingdom. In this investigation, producers were asked to comment on the following categories: lead and bismuth free-machining steels, non-lead and bismuth free-machining steels, and other special quality steels. Their reported comments reflect their responses under all three categories. Producers were not asked to comment on semifinished products in these earlier investigations.

Lead and bismuth steels take less time and energy to cut because they fracture so much more easily than other steels. Moreover, they form smaller cracks, leaving smaller fragments behind. These small "chips" save energy because of easy disposal and time because they will not clog the machinery. Moreover, the resulting part will have a very smooth finish because the fragments are so small.

Lead and bismuth hot-rolled products are also subject to "soft metal lubrication." When the friction heat softens or melts the lead or bismuth particles, they act as a lubricant at the chip-tool interface, reducing friction and hence, energy consumption.

The high machinability of lead and bismuth steels allows the screw machine shop to realize substantial cost savings. Moreover, the tight specifications for most parts made with these products mean that even a small deterioration in quality, either in reject rate or surface finish, can make the product unusable. Therefore, even a slightly lower machinability in a steel product can make a part uneconomical to produce.

The qualities that make Pb/Bi steels machinable also hurt other properties. They are not as strong as non-Pb/Bi steels. Extensive heat treatment is impossible because it can cause Pb/Bi to have low-melting points, and thus, melt out of the steel and makes the steel porous. The weakness prevents high stress applications like forging and cold heading.

These physical characteristics make lead and bismuth hot-rolled products uniquely suited for machining. A producer using a lead or bismuth steel can make parts substantially more quickly, with a better surface finish, and lower reject rate than with any other steel.

Quality is especially important with this product because it is made into high precision parts. The part purchaser must be certain that the finished part will have a smooth finish and satisfy tight physical specifications. Reject rate is even more important. The producer must scrap any parts rejected in the shop, and so loses the entire investment. If the purchaser finds too many nonconforming parts, it may cancel an entire contract.

The most common source of rejects is "part growth." Just as with any cutting edge, the blade of a machine tool wears the more it is used, a process accelerated in hard-to-cut materials. As the machine tool cutting surface wears, it cuts less sharply and less deeply. Thus, parts made later in the cutting blade's life are usually larger than parts produced earlier, a phenomenon known as "part growth." Lead and bismuth steels have slower part growth than any other

carbon steel. Therefore, they have fewer rejects and are more likely to meet customer specifications.

Purchasers of machined parts are aware of these properties, and the vast majority of contracts forbid screw machine shops from using anything but lead or bismuth steel. *** sells its lead and bismuth steel bars almost exclusively to cold drawers, which further process the steel (usually by drawing) and then sell it to screw machine shops for machining into high precision parts."

Non-lead/bismuth free-machining products.--"These steels require both more time and more energy to machine. First, they have a stronger molecular structure than those discussed above. The inclusions typically present in them have a stronger link to the steel lattice, and so are less likely to fracture. Sulfide inclusions in these products will be flatter and longer (making the steel harder to machine) than in lead and bismuth products. Second, the absence of low-melting point elements means that other SBQ steels do not undergo liquid metal embrittlement. Finally, these products do not have the soft metal lubrication qualities of lead and bismuth steels.

These qualities result in larger cracks, occurring less frequently. Therefore, machining will create much larger chips, leaving the part surface rough and pitted and increasing the likelihood of the machine tool clogging.

These physical characteristics make other free-machining products much less suitable for extensive machining than lead and bismuth steels. First, the energy consumption increase and production rate decrease result in substantially higher production costs for machining these products. Second, other free-machining bars' faster part growth increases the reject rate and tool costs, adding further to production costs and possibly exceeding the customer's reliability requirements. Third, the large chips characteristic of these steels make the finished part rougher, and, thus, less suited for high precision uses.

There is a significant difference in machinability between these products and lead and bismuth steels. The more complex the part, the more necessary lead and bismuth become. Some parts involve multiple cuts of different sizes and different locations. A flaw in any one makes the part useless. In order to ensure reliability, the large majority of customer specifications forbids using any product other than lead and bismuth steels where machinability is of paramount importance. Even in the few cases where customers allow a choice, the screw machine will almost always choose lead or bismuth steel because of the much greater productivity such products allow them. Complex machined parts will seldom, if ever, be made with 11xx or 12xx steels.

However, these products are used when the purchaser wants enhanced machinability and strength, heat treatment, or forging (applications normally impossible with Pb/Bi steels)."

Other special quality products.--"These products are the most difficult to machine of the three categories. Their structure is stronger than those cited above, and they contain a much smaller proportion of sulfide inclusions to aid in chip breakage.

Other special quality products are generally used for parts where (1) ease of machining is not of primary concern or (2) the presence of the inclusions which aid machining would be detrimental to the service performance of the finished part. Some examples of this category include gears, shafts subject to high torque, etc."

*** "Used for driveline yokes, hydraulic fittings, transmission shafts." See comments under (A).

*** See comments under (A).

*** "The physical characteristics of free machining products are the same as other products. They differ in chemistry only, with free machining additives such as sulphur, lead, selenium, and bismuth present in free machining grades. Free machining products are used in machining operations where rapid removal of stock is desired."

*** "The physical and metallurgical characteristic of special quality free machining hot rolled products may be exactly the same as other special quality hot rolled products; that is, both may be ordered in a variety of sizes and surface conditions, e.g., hot rolled, cold drawn, turned and polished, etc.

...Both hot rolled products may undergo forging, machining, cold finishing, or heat treating for end use in automotive gear train, engine or suspension parts, oil country goods, off-highway equipment where the superior properties of special quality engineered steels are required. Where high machining rates are required, free machining products may be favored over other special quality products since machinability enhancers such as sulfur combine with manganese in the steel to produce manganese sulfide inclusions which act as chip breakers during machining."

*** "Free-machining steels have enhanced machinability because inclusions formed allow for greater machining. Free-machining steel is used to make highly machined parts. Other SBQ is used when machining is not a primary consideration."

APPENDIX F

**SUMMARY TABLES ON FREE-MACHINING PRODUCTS,
OTHER SPECIAL QUALITY PRODUCTS, AND ALL SPECIAL
QUALITY PRODUCTS, BY PRODUCTS**

Table F-1

Free-machining carbon and certain alloy steel semifinished products: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. consumption quantity:						
Amount.....	1,030,253	804,444	1,076,512	+4.5	-21.9	+33.8
Producers' share <u>1</u> /.....	93.4	93.1	91.3	-2.1	-0.3	-1.8
Importers' share: <u>1</u> /						
Brazil (subject).....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	6.6	6.9	8.7	+2.1	+0.3	+1.8
U.S. consumption value:						
Amount.....	351,548	273,629	353,555	+0.6	-22.2	+29.2
Producers' share <u>1</u> /.....	91.5	92.0	90.2	-1.3	+0.4	-1.8
Importers' share: <u>1</u> /						
Brazil (subject).....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	8.5	8.0	9.8	+1.3	-0.4	+1.8
U.S. importers' imports from-						
Brazil (subject):						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
Other sources:						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
All sources:						
U.S. shipments quantity..	68,276	55,533	93,526	+37.0	-18.7	+68.4
U.S. shipments value.....	29,803	21,980	34,654	+16.3	-26.2	+57.7
Unit value.....	\$436.51	\$395.80	\$370.53	-15.1	-9.3	-6.4
U.S. producers'---						
Average capacity quantity..	1,843,811	1,811,879	1,877,244	+1.8	-1.7	+3.6
Production quantity.....	963,715	754,352	952,091	-1.2	-21.7	+26.2
Capacity utilization <u>1</u> /....	52.3	41.6	50.7	-1.6	-10.6	+9.1
U.S. shipments:						
Quantity.....	961,977	748,911	982,986	+2.2	-22.1	+31.3
Value.....	321,745	251,649	318,901	-0.9	-21.8	+26.7
Unit value.....	\$334.46	\$336.02	\$324.42	-3.0	+0.5	-3.5
Export shipments:						
Quantity.....	***	***	***	***	***	***
Exports/shipments <u>1</u> /.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***

See footnotes at end of table.

Table F-1--Continued

Free-machining carbon and certain alloy steel semifinished products: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. producers'--Continued						
Ending inventory quantity..	***	***	***	***	***	***
Inventory/shipments <u>1</u> /.....	***	***	***	***	***	***
Production workers.....	876	743	892	+1.8	-15.2	+20.1
Hours worked (1,000s).....	1,619	1,294	1,671	+3.2	-20.1	+29.1
Total comp. (\$1,000).....	38,964	35,475	42,889	+10.1	-9.0	+20.9
Hourly total compensation..	\$24.07	\$27.41	\$25.67	+6.6	+13.9	-6.4
Productivity (tons/hour)...	0.488	0.472	0.466	-4.5	-3.3	-1.2
Unit labor costs.....	\$49.30	\$58.09	\$55.06	+11.7	+17.8	-5.2
Net sales--						
Quantity.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Cost of goods sold (COGS)..	***	***	***	***	***	***
Gross profit (loss).....	***	***	***	***	***	***
SG&A expenses.....	***	***	***	***	***	***
Operating income (loss)....	***	***	***	***	***	***
Capital expenditures.....	***	***	***	***	***	***
Unit COGS.....	***	***	***	***	***	***
COGS/sales <u>1</u> /.....	***	***	***	***	***	***
Op.income (loss)/sales <u>1</u> /..	***	***	***	***	***	***

1/ 'Reported data' are in percent and 'period changes' are in percentage-point.

2/ Not applicable.

Note.--Period changes are derived from the unrounded data. Period changes involving negative period data are positive if the amount of the negativity decreases and negative if the amount of the negativity increases. Because of rounding, figures may not add to the totals shown. Ratios are calculated using data of firms supplying both numerator and denominator information.

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

Table F-2

Other special quality carbon and certain alloy steel semifinished products: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. consumption quantity:						
Amount.....	6,232,447	5,956,101	6,205,943	-0.4	-4.4	+4.2
Producers' share <u>1</u> /.....	94.4	91.9	92.9	-1.5	-2.5	+1.1
Importers' share: <u>1</u> /						
Brazil.....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	5.6	8.1	7.1	+1.5	+2.5	-1.1
U.S. consumption value:						
Amount.....	2,226,075	2,121,998	1,982,300	-11.0	-4.7	-6.6
Producers' share <u>1</u> /.....	95.0	93.5	93.5	-1.5	-1.5	<u>2</u> /
Importers' share: <u>1</u> /						
Brazil.....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	5.0	6.5	6.5	+1.5	+1.5	<u>3</u> /
U.S. importers' imports from--						
Brazil:						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
Other sources:						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
All sources:						
U.S. shipments quantity..	349,148	483,952	438,284	+25.5	+38.6	-9.4
U.S. shipments value.....	110,843	137,621	128,620	+16.0	+24.2	-6.5
Unit value.....	\$317.47	\$284.37	\$293.46	-7.6	-10.4	+3.2
U.S. producers'--						
Average capacity quantity..	7,510,209	7,719,261	7,813,153	+4.0	+2.8	+1.2
Production quantity.....	5,911,856	5,451,651	5,691,666	-3.7	-7.8	+4.4
Capacity utilization <u>1</u> /....	78.2	70.0	72.1	-6.1	-8.2	+2.1
U.S. shipments:						
Quantity.....	5,883,299	5,472,149	5,767,659	-2.0	-7.0	+5.4
Value.....	2,115,232	1,984,377	1,853,680	-12.4	-6.2	-6.6
Unit value.....	\$359.53	\$362.63	\$321.39	-10.6	+0.9	-11.4
Export shipments:						
Quantity.....	***	***	***	***	***	***
Exports/shipments <u>1</u> /.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***

See footnotes at end of table.

Table F-2--Continued

Other special quality carbon and certain alloy steel semifinished products: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. producers'--Continued						
Ending inventory quantity..	***	***	***	***	***	***
Inventory/shipments <u>1</u> /.....	***	***	***	***	***	***
Production workers.....	3,721	3,397	3,328	-10.6	-8.7	-2.0
Hours worked (1,000s).....	7,816	6,903	6,732	-13.9	-11.7	-2.5
Total comp. (\$1,000).....	177,106	175,841	184,840	+4.4	-0.7	+5.1
Hourly total compensation..	\$22.66	\$25.47	\$27.46	+21.2	+12.4	+7.8
Productivity (tons/hour)...	0.503	0.496	0.518	+2.9	-1.3	+4.3
Unit labor costs.....	\$45.04	\$51.31	\$53.03	+17.7	+13.9	+3.4
Net sales--						
Quantity.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Cost of goods sold (COGS)...	***	***	***	***	***	***
Gross profit (loss).....	***	***	***	***	***	***
SG&A expenses.....	***	***	***	***	***	***
Operating income (loss)....	***	***	***	***	***	***
Capital expenditures.....	***	***	***	***	***	***
Unit COGS.....	***	***	***	***	***	***
COGS/sales <u>1</u> /.....	***	***	***	***	***	***
Op.income (loss)/sales <u>1</u> /..	***	***	***	***	***	***

1/ 'Reported data' are in percent and 'period changes' are in percentage-point.

2/ A decrease of less than 0.05 percentage points.

3/ An increase of less than 0.05 percentage points.

4/ Not applicable.

Note.--Period changes are derived from the unrounded data. Period changes involving negative period data are positive if the amount of the negativity decreases and negative if the amount of the negativity increases. Because of rounding, figures may not add to the totals shown. Ratios are calculated using data of firms supplying both numerator and denominator information.

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

Table F-3

All special quality carbon and certain alloy steel semifinished products: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. consumption quantity:						
Amount.....	7,262,700	6,760,545	7,282,455	+0.3	-6.9	+7.7
Producers' share <u>1</u> /.....	94.3	92.0	92.7	-1.6	-2.2	+0.7
Importers' share: <u>1</u> /						
Brazil (subject).....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	5.7	8.0	7.3	+1.6	+2.2	-0.7
U.S. consumption value:						
Amount.....	2,577,623	2,395,627	2,335,855	-9.4	-7.1	-2.5
Producers' share <u>1</u> /.....	94.5	93.3	93.0	-1.5	-1.2	-0.3
Importers' share: <u>1</u> /						
Brazil (subject).....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	5.5	6.7	7.0	+1.5	+1.2	+0.3
U.S. importers' imports from--						
Brazil (subject):						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
Other sources:						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
All sources:						
U.S. shipments quantity..	417,424	539,485	531,810	+27.4	+29.2	-1.4
U.S. shipments value.....	140,646	159,601	163,274	+16.1	+13.5	+2.3
Unit value.....	\$336.94	\$295.84	\$307.02	-8.9	-12.2	+3.8
U.S. producers'--						
Average capacity quantity..	9,354,020	9,531,140	9,690,397	+3.6	+1.9	+1.7
Production quantity.....	6,875,571	6,206,003	6,643,757	-3.4	-9.7	+7.1
Capacity utilization <u>1</u> /....	73.1	64.6	67.9	-5.1	-8.5	+3.4
U.S. shipments:						
Quantity.....	6,845,276	6,221,060	6,750,645	-1.4	-9.1	+8.5
Value.....	2,436,977	2,236,026	2,172,581	-10.8	-8.2	-2.8
Unit value.....	\$356.01	\$359.43	\$321.83	-9.6	+1.0	-10.5
Export shipments:						
Quantity.....	***	***	***	***	***	***
Exports/shipments <u>1</u> /.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***

See footnotes at end of table.

Table F-3--Continued

All special quality carbon and certain alloy steel semifinished products: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. producers'--Continued						
Ending inventory quantity..	22,365	182,851	73,575	-66.9	-17.8	-59.8
Inventory/shipments <u>1/</u>	***	***	***	***	***	***
Production workers.....	4,597	4,140	4,220	-8.2	-9.9	+1.9
Hours worked (1,000s).....	9,435	8,197	8,403	-10.9	-13.1	+2.5
Total comp. (\$1,000).....	216,070	211,316	227,729	+5.4	-2.2	+7.8
Hourly total compensation..	\$22.90	\$25.78	\$27.10	+18.3	+12.6	+5.1
Productivity (tons/hour)...	0.501	0.493	0.508	+1.4	-1.6	+3.0
Unit labor costs.....	\$45.75	\$52.33	\$53.40	+16.7	+14.4	+2.0
Net sales--						
Quantity.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Cost of goods sold (COGS)..	***	***	***	***	***	***
Gross profit (loss).....	***	***	***	***	***	***
SG&A expenses.....	***	***	***	***	***	***
Operating income (loss)....	***	***	***	***	***	***
Capital expenditures.....	***	***	***	***	***	***
Unit COGS.....	***	***	***	***	***	***
COGS/sales <u>1/</u>	***	***	***	***	***	***
Op.income (loss)/sales <u>1/</u> ..	***	***	***	***	***	***

1/ 'Reported data' are in percent and 'period changes' are in percentage-point.

2/ Not applicable.

3/ A decrease of 1,000 percent or more.

Note.--Period changes are derived from the unrounded data. Period changes involving negative period data are positive if the amount of the negativity decreases and negative if the amount of the negativity increases. Because of rounding, figures may not add to the totals shown. Ratios are calculated using data of firms supplying both numerator and denominator information.

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

Table F-4

Free-machining carbon and certain alloy steel hot-rolled bars: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. consumption quantity:						
Amount.....	910,501	741,903	907,674	-0.3	-18.5	+22.3
Producers' share $\frac{1}{}$	85.3	81.0	84.5	-0.8	-4.3	+3.5
Importers' share: $\frac{1}{}$						
Brazil (subject).....	***	***	***	***	***	***
Brazil, France, Germany, and U.K. (L&B only)....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	14.7	19.0	15.5	+0.8	+4.3	-3.5
U.S. consumption value:						
Amount.....	453,737	370,234	441,163	-2.8	-18.4	+19.2
Producers' share $\frac{1}{}$	86.2	81.8	84.8	-1.3	-4.4	+3.1
Importers' share: $\frac{1}{}$						
Brazil (subject).....	***	***	***	***	***	***
Brazil, France, Germany, and U.K. (L&B only)....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	13.8	18.2	15.2	+1.3	+4.4	-3.1
U.S. importers' imports from--						
Brazil (subject):						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
Brazil, France, Germany, and U.K. (L&B only):						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
Other sources:						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
All sources:						
U.S. shipments quantity..	134,069	140,897	140,544	+4.8	+5.1	-0.3
U.S. shipments value.....	62,747	67,489	66,898	+6.6	+7.6	-0.9
Unit value.....	\$468.02	\$479.00	\$475.99	+1.7	+2.3	-0.6
U.S. producers'--						
Average capacity quantity..	1,290,499	1,275,423	1,257,006	-2.6	-1.2	-1.4
Production quantity.....	782,992	606,143	794,750	+1.5	-22.6	+31.1
Capacity utilization $\frac{1}{}$	60.7	47.5	63.2	+2.6	-13.1	+15.7

See footnotes at end of table.

Table F-4--Continued

Free-machining carbon and certain alloy steel hot-rolled bars: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. producers'--Continued						
U.S. shipments:						
Quantity.....	776,432	601,006	767,130	-1.2	-22.6	+27.6
Value.....	390,990	302,745	374,265	-4.3	-22.6	+23.6
Unit value.....	\$503.57	\$503.73	\$487.88	-3.1	5/	-3.1
Export shipments:						
Quantity.....	***	***	***	***	***	***
Exports/shipments 1/.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory quantity..	50,113	49,829	73,881	+47.4	-0.6	+48.3
Inventory/shipments 1/.....	***	***	***	***	***	***
Production workers.....	1,178	1,055	1,059	-10.1	-10.4	+0.4
Hours worked (1,000s).....	2,385	1,926	2,051	-14.0	-19.2	+6.5
Total comp. (\$1,000).....	57,676	48,322	55,681	-3.5	-16.2	+15.2
Hourly total compensation..	\$24.18	\$25.09	\$27.15	+12.3	+3.7	+8.2
Productivity (tons/hour)...	0.308	0.289	0.354	+15.0	-6.3	+22.7
Unit labor costs.....	\$78.49	\$86.90	\$76.61	-2.4	+10.7	-11.8
Net sales--						
Quantity.....	633,051	488,111	608,674	-3.9	-22.9	+24.7
Value.....	322,302	250,373	306,184	-5.0	-22.3	+22.3
Cost of goods sold (COGS)..	324,144	252,088	311,357	-3.9	-22.2	+23.5
Gross profit (loss).....	(1,842)	(1,715)	(5,173)	-180.8	+6.9	-201.6
SG&A expenses.....	22,540	20,518	20,018	-11.2	-9.0	-2.4
Operating income (loss)....	(24,382)	(22,233)	(25,191)	-3.3	+8.8	-13.3
Capital expenditures.....	31,375	18,765	15,142	-51.7	-40.2	-19.3
Unit COGS.....	\$512.03	\$516.46	\$511.53	-0.1	+0.9	-1.0
COGS/sales 1/.....	100.6	100.7	101.7	+1.1	+0.1	+1.0
Op.income (loss)/sales 1/..	(7.6)	(8.9)	(8.2)	-0.7	-1.3	+0.7

1/ 'Reported data' are in percent and 'period changes' are in percentage-point.

2/ An increase of less than 0.05 percentage points.

3/ A decrease of less than 0.05 percentage points.

4/ Not applicable.

5/ An increase of less than 0.05 percent.

Note.--Period changes are derived from the unrounded data. Period changes involving negative period data are positive if the amount of the negativity decreases and negative if the amount of the negativity increases. Because of rounding, figures may not add to the totals shown. Ratios are calculated using data of firms supplying both numerator and denominator information.

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

Table F-5

Other special quality carbon and certain alloy steel hot-rolled bars: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. consumption quantity:						
Amount.....	4,380,607	4,179,002	4,296,910	-1.9	-4.6	+2.8
Producers' share <u>1</u> /.....	96.9	95.6	95.8	-1.1	-1.3	+0.2
Importers' share: <u>1</u> /						
Brazil (subject).....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	3.1	4.4	4.2	+1.1	+1.3	-0.2
U.S. consumption value:						
Amount.....	2,135,971	1,993,270	1,986,570	-7.0	-6.7	-0.3
Producers' share <u>1</u> /.....	96.9	95.8	95.7	-1.2	-1.2	<u>2</u> /
Importers' share: <u>1</u> /						
Brazil (subject).....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	3.1	4.2	4.3	+1.2	+1.2	<u>3</u> /
U.S. importers' imports from--						
Brazil (subject):						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
Other sources:						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
All sources:						
U.S. shipments quantity..	135,879	183,275	181,126	+33.3	+34.9	-1.2
U.S. shipments value.....	65,236	84,657	84,540	+29.6	+29.8	-0.1
Unit value.....	\$480.10	\$461.91	\$466.75	-2.8	-3.8	+1.0
U.S. producers'--						
Average capacity quantity..	5,604,510	5,659,320	5,710,539	+1.9	+1.0	+0.9
Production quantity.....	4,288,564	3,982,174	4,178,510	-2.6	-7.1	+4.9
Capacity utilization <u>1</u> /....	76.5	70.4	73.2	-3.3	-6.2	+2.8
U.S. shipments:						
Quantity.....	4,244,728	3,995,727	4,115,784	-3.0	-5.9	+3.0
Value.....	2,070,735	1,908,613	1,902,030	-8.1	-7.8	-0.3
Unit value.....	\$487.84	\$477.66	\$462.13	-5.3	-2.1	-3.3
Export shipments:						
Quantity.....	***	***	***	***	***	***
Exports/shipments <u>1</u> /.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***

See footnotes at end of table

Table F-5--Continued

Other special quality carbon and certain alloy steel hot-rolled bars: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. producers'--Continued						
Ending inventory quantity..	299,775	319,764	338,955	+13.1	+6.7	+6.0
Inventory/shipments <u>1</u> /.....	***	***	***	***	***	***
Production workers.....	4,060	3,810	3,652	-10.0	-6.2	-4.1
Hours worked (1,000s).....	8,568	7,739	7,497	-12.5	-9.7	-3.1
Total comp. (\$1,000).....	197,008	175,150	173,194	-12.1	-11.1	-1.1
Hourly total compensation..	\$22.99	\$22.63	\$23.10	+0.5	-1.6	+2.1
Productivity (tons/hour)...	0.417	0.421	0.454	+8.8	+0.9	+7.8
Unit labor costs.....	\$55.12	\$53.78	\$50.92	-7.6	-2.4	-5.3
Net sales--						
Quantity.....	3,078,131	2,884,639	2,919,762	-5.1	-6.3	+1.2
Value.....	1,495,634	1,383,658	1,365,660	-8.7	-7.5	-1.3
Cost of goods sold (COGS)...	1,320,773	1,280,816	1,228,695	-7.0	-3.0	-4.1
Gross profit (loss).....	174,861	102,842	136,965	-21.7	-41.2	+33.2
SG&A expenses.....	79,371	83,140	77,226	-2.7	+4.7	-7.1
Operating income (loss)....	95,490	19,702	59,739	-37.4	-79.4	+203.2
Capital expenditures.....	63,575	49,476	37,555	-40.9	-22.2	-24.1
Unit COGS.....	\$429.08	\$444.01	\$420.82	-1.9	+3.5	-5.2
COGS/sales <u>1</u> /.....	88.3	92.6	90.0	+1.7	+4.3	-2.6
Op.income (loss)/sales <u>1</u> /..	6.4	1.4	4.4	-2.0	-5.0	+3.0

1/ 'Reported data' are in percent and 'period changes' are in percentage-point.

2/ A decrease of less than 0.05 percentage points.

3/ An increase of less than 0.05 percentage points.

Note.--Period changes are derived from the unrounded data. Because of rounding, figures may not add to the totals shown. Ratios are calculated using data of firms supplying both numerator and denominator information.

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

Table F-6

All special quality carbon and certain alloy steel hot-rolled bars: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. consumption quantity:						
Amount.....	5,291,108	4,920,905	5,204,584	-1.6	-7.0	+5.8
Producers' share $\frac{1}{}$	94.9	93.4	93.8	-1.1	-1.5	+0.4
Importers' share: $\frac{1}{}$						
Brazil (subject).....	***	***	***	***	***	***
Brazil, France, Germany, and U.K. (L&B only)....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	5.1	6.6	6.2	+1.1	+1.5	-0.4
U.S. consumption value:						
Amount.....	2,589,708	2,363,504	2,427,733	-6.3	-8.7	+2.7
Producers' share $\frac{1}{}$	95.1	93.6	93.8	-1.3	-1.5	+0.2
Importers' share: $\frac{1}{}$						
Brazil (subject).....	***	***	***	***	***	***
Brazil, France, Germany, and U.K. (L&B only)....	***	***	***	***	***	***
Other sources.....	***	***	***	***	***	***
Total.....	4.9	6.4	6.2	+1.3	+1.5	-0.2
U.S. importers' imports from--						
Brazil (subject):						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
Brazil, France, Germany, and U.K. (L&B only):						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
Other sources:						
U.S. shipments quantity..	***	***	***	***	***	***
U.S. shipments value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory qty.....	***	***	***	***	***	***
All sources:						
U.S. shipments quantity..	269,948	324,172	321,670	+19.2	+20.1	-0.8
U.S. shipments value.....	127,983	152,146	151,438	+18.3	+18.9	-0.5
Unit value.....	\$474.10	\$469.34	\$470.79	-0.7	-1.0	+0.3
U.S. producers'---						
Average capacity quantity..	6,895,009	6,934,743	6,967,545	+1.1	+0.6	+0.5
Production quantity.....	5,071,556	4,588,317	4,973,260	-1.9	-9.5	+8.4
Capacity utilization $\frac{1}{}$	73.6	66.2	71.4	-2.2	-7.4	+5.2

See footnotes at end of table.

Table F-6--Continued

All special quality carbon and certain alloy steel hot-rolled bars: Summary data concerning the U.S. market, 1990-92

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit COGS are per short ton, period changes=percent, except where noted)

Item	Reported data			Period changes		
	1990	1991	1992	1990-92	1990-91	1991-92
U.S. producers'--Continued						
U.S. shipments:						
Quantity.....	5,021,160	4,596,733	4,882,914	-2.8	-8.5	+6.2
Value.....	2,461,725	2,211,358	2,276,295	-7.5	-10.2	+2.9
Unit value.....	\$490.27	\$481.07	\$466.18	-4.9	-1.9	-3.1
Export shipments:						
Quantity.....	***	***	***	***	***	***
Exports/shipments <u>1/</u>	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory quantity..	349,888	369,593	412,836	+18.0	+5.6	+11.7
Inventory/shipments <u>1/</u>	***	***	***	***	***	***
Production workers.....	5,238	4,865	4,711	-10.1	-7.1	-3.2
Hours worked (1,000s).....	10,953	9,665	9,548	-12.8	-11.8	-1.2
Total comp. (\$1,000).....	254,684	223,472	228,875	-10.1	-12.3	+2.4
Hourly total compensation..	\$23.25	\$23.12	\$23.97	+3.1	-0.6	+3.7
Productivity (tons/hour)...	0.393	0.394	0.432	+9.9	+0.3	+9.6
Unit labor costs.....	\$59.10	\$58.61	\$55.44	-6.2	-0.8	-5.4
Net sales--						
Quantity.....	3,711,182	3,372,750	3,528,436	-4.9	-9.1	+4.6
Value.....	1,817,936	1,634,031	1,671,844	-8.0	-10.1	+2.3
Cost of goods sold (COGS)..	1,644,917	1,532,904	1,540,052	-6.4	-6.8	+0.5
Gross profit (loss).....	173,019	101,127	131,792	-23.8	-41.6	+30.3
SG&A expenses.....	101,911	103,658	97,244	-4.6	+1.7	-6.2
Operating income (loss)....	71,108	(2,531)	34,548	-51.4	-103.6	4/
Capital expenditures.....	94,950	68,241	52,697	-44.5	-28.1	-22.8
Unit COGS.....	\$443.23	\$454.50	\$436.47	-1.5	+2.5	-4.0
COGS/sales <u>1/</u>	90.5	93.8	92.1	+1.6	+3.3	-1.7
Op.income (loss)/sales <u>1/</u> ..	3.9	(0.2)	2.1	-1.8	-4.1	+2.2

1/ 'Reported data' are in percent and 'period changes' are in percentage-point.

2/ An increase of less than 0.05 percentage points.

3/ A decrease of less than 0.05 percentage points.

4/ An increase of 1,000 percent or more.

Note.--Period changes are derived from the unrounded data. Period changes involving negative period data are positive if the amount of the negativity decreases and negative if the amount of the negativity increases. Because of rounding, figures may not add to the totals shown. Ratios are calculated using data of firms supplying both numerator and denominator information.

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

APPENDIX G
QUANTIFIABLE CHARACTERISTICS OF SO-CALLED CLASS 2
AND CLASS 3 MILLS

Table G-1
Various quantifiable characteristics of so-called Class 2 and Class 3 special quality mills, by firms

* * * * *

APPENDIX H
***** FINANCIAL DATA**

Table H-1

Income-and-loss experience of *** on its operations producing free-machining carbon and certain alloy steel hot-rolled bars, fiscal years 1990-92

* * * * *

Table H-2

Income-and-loss experience of *** on its operations producing other special quality carbon and certain alloy steel hot-rolled bars, fiscal years 1990-92

* * * * *

APPENDIX I

**COMMENTS RECEIVED FROM U.S. PRODUCERS ON THE IMPACT OF
IMPORTS OF SPECIAL QUALITY CARBON AND CERTAIN ALLOY STEEL
HOT-ROLLED BARS AND SEMIFINISHED PRODUCTS FROM BRAZIL
ON THEIR GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL,
AND EXISTING DEVELOPMENT AND PRODUCTION EFFORTS**

COMMENTS RECEIVED FROM U.S. PRODUCERS ON THE IMPACT OF IMPORTS OF SPECIAL QUALITY CARBON AND CERTAIN ALLOY STEEL HOT-ROLLED BARS AND SEMIFINISHED PRODUCTS FROM BRAZIL ON THEIR GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL, AND EXISTING DEVELOPMENT AND PRODUCTION EFFORTS

The Commission requested U.S. producers to describe any actual or anticipated negative effects of imports of special quality carbon and certain alloy steel hot-rolled bars and semifinished products from Brazil on existing development and production efforts, growth, investment, and ability to raise capital. Eight firms--***--indicated they suffered no negative effects. The responses of the five producers who supplied comments to the following questions are as follows:

1. Since January 1, 1990, has your firm experienced any actual negative effects on its growth, investment, ability to raise capital, or existing development and production efforts, including efforts to develop a derivative or more advanced version of the product, as a result of imports of special quality carbon and certain alloy steel hot-rolled bars and semifinished products thereof from Brazil?

Firm Product Description of actual negative impact

* * * * * * *

2. Does your firm anticipate any negative impact of imports of special quality carbon and certain alloy steel bars and semifinished products thereof from Brazil?

Firm Product Description of anticipated negative impact

* * * * * * *

3. Has the scale of capital investments undertaken been influenced by the presence of imports of special quality carbon and certain alloy steel bar and semifinished products thereof from Brazil?

Firm Explanation

* * * * * * *

APPENDIX J

EUROPEAN COMMISSION DUMPING DECISIONS

COMMISSION DECISION No 891/92/ECSC

of 30 March 1992

imposing a provisional anti-dumping duty on imports of certain semi-finished products of alloy steel, originating in Turkey and Brazil

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Coal and Steel Community,

Having regard to Commission Decision No 2424/88/ECSC of 29 July 1988 on protection against dumped or subsidized imports from countries not members of the European Coal and Steel Community⁽¹⁾, and in particular Article 11 thereof,

After consultation within the Advisory Committee as provided for by the above Decision,

Whereas :

A. PROCEDURE

- (1) In February 1990 the Commission received a complaint lodged by the European Confederation of Iron and Steel Industries (Eurofer) on behalf of producers whose collective output constitutes the majority of Community production of the products in question. The complaint contained evidence of dumping and of material injury resulting therefrom, which was considered sufficient to justify the initiation of a proceeding. The Commission accordingly announced, by a notice published in the *Official Journal of the European Communities*⁽²⁾, the initiation of an anti-dumping proceeding concerning imports into the Community of certain semi-finished products of special engineering alloy steel, of rectangular (including square) cross-section, hot-rolled or obtained by continuous casting, falling within CN codes ex 7224 90 09 and ex 7224 90 15, originating in Turkey and Brazil and commenced an investigation.
- (2) The Commission officially so advised the exporters and importers known to be concerned, the representatives of the exporting countries and the complainants and gave the parties directly concerned the opportunity to make known their views in writing and to request a hearing.
- (3) All of the producers/exporters and some importers known to the Commission made their views known

in writing. Several producers/exporters requested a hearing which was granted.

- (4) No submissions were made by or on behalf of Community purchasers or processors of the products concerned.
- (5) The Commission sought and verified all information it deemed to be necessary for the purpose of a preliminary determination and carried out investigations at the premises of the following companies :

EEC producers:

- Saarstahl AG, Völklingen, Germany,
- Thyssen Edelstahlwerke AG, Krefeld, Germany,
- Edelstahlwerke Buderus AG, Wetzlar, Germany,
- Krupp Stahl AG, Bochum, Germany,
- Klöckner Stahl GmbH, Georgsmarienhütte, Germany,
- Ascometal, Paris La Défense, France,
- ILVA SpA, Sesto S. Giovanni, Italy.

Non-EEC producers/exporters :

in Brazil :

- Villares Indústrias de Base SA (Vibasa), São Paulo,
- Aços Anhanguera SA, São Paulo,
- Companhia Aços Especiais Itabira (Acesita), Belo Horizonte,
- Aços Finos Piratini SA, Porto Alegre.

in Turkey :

- Asil Çelik, Istanbul.

- (6) The Commission requested and received detailed written submissions from the complainant Community producers and some importers and verified the information therein to the extent considered necessary.
- (7) The investigation of dumping covered the period from 1 April 1989 to 31 March 1990.
- (8) Due to the complexity of the proceeding, in particular the difficulties met by the Commission in obtaining, from some of the interested parties the relevant data, the investigation exceeded the normal period of one year laid down in Article 7 (9) of Decision No 2424/88/ECSC.

⁽¹⁾ OJ No L 209, 2. 8. 1988, p. 18 and corrigendum in OJ No L 273, 5. 10. 1988, p. 19.

⁽²⁾ OJ No C 144, 14. 6. 1990, p. 5.

B. PRODUCT UNDER CONSIDERATION, LIKE PRODUCT

- (9) The products concerned by the proceeding are semi-finished products of rectangular (including square) cross-section, hot-rolled or obtained by continuous casting. Semi-finished products of alloy steel, also known as alloy engineering steel billets, are those steels used to make engineering components. A large proportion of engineering steels are ultimately destined for the automobile and heavy vehicle industries as components for engines, gear boxes, transmission and steering parts. Other and applications are mining, energy, aerospace and mechanical engineering. Alloy steel is on the market in a multitude of alloys for different applications, e.g. special engineering steels such as heat treatable steels, cast hardened steels, nitriding steels, steels for flame and induction hardening, roller bearing steels, spring steels, steels for bolts and nuts etc.
- (10) Engineering steels are produced in forms of rectangular (including square) billets, bars and coils. Only rectangular billets are considered as semi-finished products in the sense of this proceeding. Alloy steel billets are to be distinguished from bars of alloy steel which consist basically of the same product but further processed.
- (11) During the course of the investigation it became apparent that the words 'special engineering' and nothing to the term 'alloy steel' and that there are no other products falling under tariff headings 7224 90 09 and 7224 90 15. Therefore the product definition can be simplified in the interests of clarity to be: semi-finished products of alloy steel, of rectangular (including square) cross-section hot-rolled or obtained by continuous casting, falling within CN codes 7224 90 09 and 7224 90 15.
- (12) The Commission found that the semi-finished products of alloy steel produced by the Community industry are like in all essential physical and technical characteristics to those imported from Turkey and Brazil, which are also like to those sold for consumption on the Turkish and Brazilian markets.

C. DUMPING

1. Normal value

(a) *Turkey*

- (13) The Turkish producer was found to sell significant quantities on a profitable basis on the domestic

market. Therefore, domestic sales prices were chosen for the determination of normal value.

- (14) The inflation rate in Turkey was over 70 % per annum during the investigation period. In order to eliminate the effects of inflation, normal value was determined for the shortest possible meaningful period, i.e. on a per month basis.

(b) *Brazil*

- (15) In the case of all four Brazilian producers, normal values had to be constructed because substantial sales had been made at a loss or there were no representative sales of the like products exported to the Community on the domestic market.
- (16) Normal value was determined by adding a reasonable amount for selling, general and administrative expenses and profit to the cost of production. As only one of the four Brazilian companies concerned showed an operating profit during the reference period, the profit margin retained for this company was also applied for all other companies.
- (17) The constructed value was calculated on the basis of average figures for cost and profit and was established on a monthly basis in order to take account of the effects of inflation.

2. Export prices

- (18) The export prices for the Turkish and Brazilian producers for every export transaction to independent Community customers were determined on the basis of the prices actually paid or payable.
- (19) In the case of the Turkish producer six alloy steel grades accounted for approximately 70 % of the total Turkish export sales to the Community. The Commission decided, therefore, in agreement with the Turkish producer, to base the dumping calculations on these six alloy steel grades.

3. Comparison

- (20) Normal values and export prices of the Turkish and Brazilian producers were adjusted to net ex-works level in order to take account of differences in conditions and terms of sale and were compared on a transaction by transaction basis.

(21) Where the companies concerned could show pertinent evidence, allowances for import charges and indirect taxes borne by materials physically incorporated in the like product and refunded on export were granted in accordance with Article 2 (10) (b) of Decision No 2424/88/ECSC.

(22) A Brazilian producer claimed that, in accordance with Article 2 (10) (c) (III) of Decision No 2424/88/ECSC, its normal value should be reduced by the cost of credit granted for the sales under consideration on the domestic market because there were no comparable costs incurred on their export transactions to the Community.

(23) The Commission rejected the claim because it considers that the payment terms agreed in the sales contracts are directly related to the sales under consideration and that the cost of the credit granted to the customers is normally accounted for in the sales price. Furthermore it was verified that the Brazilian producer had calculated the cost of the credit terms granted and increased the sales price to its clients accordingly. As the Commission, for the purpose of comparison, has not directly allocated these costs to the constructed normal value, it is of the opinion that with regard to credit cost, normal value and export price have been established on a perfectly comparable basis.

4. Dumping margins

(24) The dumping margins were calculated as being the total amount by which the normal values exceeded the prices for export to the Community.

(25) The weighted average margins of dumping established and expressed as a percentage of the total cif value of the imports were as follows:

— Asil Çelik, İstanbul, Turkey	33,7 %
— Villares indústrias de Base SA (Vibasa), São Paulo, Brazil	7,4 %
— Aços Anhanguera (Villares) SA, São Paulo, Brazil	15,0 %
— Aços Especiais Itabira (Acesita), Belo Horizonte, Brazil	37,9 %
— Aços Finos Piratini SA, Porto Alegre, Brazil	1,7 %.

D. INJURY

1. Volume of dumped imports and market shares

(a) Cumulation

(26) The Commission is of the opinion that for the determination of the impact on the Community industry, the cumulative effect of all the imports has to be taken into consideration. In analyzing whether cumulation was appropriate, the Commission considered the comparability of the imported products and took further into consideration the extent to which each imported product competed in the Community with the like product of the Community industry. In addition, it was taken into account that the behaviour on the Community market of all exporters was similar and that their market position was as such not negligible.

(27) Accordingly, the Commission concluded that regard should be paid to the effect of the dumped imports cumulated from all the countries and all exporters concerned.

(b) Volume and market shares of dumped imports

(28) The evidence available to the Commission shows that the combined imports into the Community from Turkey and Brazil increased from 10 578 tonnes in 1985 to 69 391 tonnes in 1989 and 77 234 tonnes in the investigation period (April 1989 to March 1990). Over the same period Turkish imports went up from 3 880 tonnes to 20 959 tonnes and Brazilian imports from 6 698 tonnes to 56 275 tonnes.

(29) The only Turkish producer known to the Commission claimed that his direct shipments dispatched to the Community during the investigation period amounted to only 14 152 tonnes as verified by the Commission and that this quantity ought to be retained for the determination of its import volume and market share, the official trade statistics (Eurostat) being unreliable.

(30) The Commission considers that in this case the Eurostat Statistics reflect in a reliable manner the total quantities of the products in question originating in Turkey which have been imported into the Community.

(31) Discrepancies with dispatch figures of the producer can stem from the time lag between the date of shipment in the country of origin and customs clearance in the Community as well as from redirection of exports towards the Community. The Commission therefore relied on the quantities recorded by Eurostat.

- (32) The imports concentrated on the German, Italian and United Kingdom markets, the German market being the most affected with 46 290 tonnes representing 60 % of the total dumped imports.
- (33) In terms of market shares based on total apparent Community consumption, the market penetration of the dumped imports increased from 1,2 % in 1985 to 7,8 % in 1989 and 8,7 % during the investigation period. On the German market alone, the impact of the dumped imports reached 13,7 %, an increase of 11,1 percentage points within two years only. The individual market shares developed from 0,5 % in 1985 to 2,4 % in the investigation period in the case of Turkey. The Brazilian market share rose from 0,8 % to 6,3 % over the same period.

2. Price undercutting

- (34) The Commission established price undercutting by comparing the exporter's prices of semi-finished products of alloy steel with the corresponding weighted average prices for the identical product sold by the Community producers on an ex-works basis. The comparison was carried out with prices cif Community border, customs cleared including port and handling charges and for every transaction made by the exporters during the investigation period.

- (35) The weighted average undercutting margins established, broken down by exporters, are :

— Asil Çelik, İstanbul, Turkey	16 %
— Villares Indústrias de Base SA (Vibasa), São Paulo, Brazil	22 %
— Açoes Anhanguera (Villares) SA, São Paulo, Brazil	26 %
— Aços Especiais Itabira (Acesita), Belo Horizonte, Brazil	15 %
— Aços Finos Piratini SA, Porto Alegre, Brazil	9 %

3. Situation of the Community industry

(a) Sales and market shares

- (36) From a cyclical downturn which bottomed out in 1987, consumption in the Community picked up rapidly in 1988 and reached its peak in 1989 with the increase of 16 % compared to the trough in 1987. While in the beginning of the recovery, the complainant Community producers were also able to expand their sales, they were rapidly lagging behind the overall evolution of demand because of

the massively increasing inflow of dumped imports. Up to the investigation period their sales even fell below the level of 1987 which led to a significant loss of market share which decreased from 84 % in 1986 to 71 % in the investigation period.

(b) Capacity utilization

- (37) Between 1987 and the investigation period capacity utilization of the complaining Community producers generally improved. This was, however, mainly achieved by streamlining production facilities, restructuring efforts of the sector and plant closures in Germany and Italy mainly induced by the continued lack of satisfactory profitability in the presence of the low-priced imports.

(c) Prices of Community producers

- (38) Between 1985 and 1987 the conjunctural downturn of demand in the Community led to a pronounced slump of prices in the Community. Although the subsequent improvement in demand allowed some Community producers to raise their prices, the possible price increase were suppressed by the competition of the dumped imports and their significant price undercutting to the extent that prices in the investigation period scarcely exceeded the price levels in 1985.

(d) Profitability

- (39) Because of the pressure on prices, Community producers had difficulties in generating satisfactory returns. In most cases, the achievable price increases were insufficient even to cover the rise in wage and raw material cost. This situation led in some cases to increasing financial losses, in others profit margins were reduced to or remained at a marginal level insufficient for a healthy development of the sector in the longer run. In particular, efforts to restructure and rationalize were in a number of cases severely hampered.

- (40) The Commission took into account that certain Community producers which, because of their electric arc technology in the steelmaking phase could rely heavily on ferrous scrap inputs, found a certain relief on the cost side from the fall in international scrap prices combined with the devaluation of the US dollar against Community currencies. The resulting cost advantages partially explain the variation in Community producer's profitability. However, the temporary cost advantages of this nature enjoyed by some Community producers cannot overshadow the overall injurious effects of the low priced imports.

4. Conclusions

- (41) The preliminary examination of the facts on injury shows that the Community industry was suffering a significant loss of market share, the prevention of price increases to cover the rise in wage and raw material costs and a deterioration of the financial results.

The Commission therefore concludes that the Community industry was suffered material injury.

5. Causation

- (42) The negative effects suffered by the Community industry coincide with the rapid increase of the dumped imports originating in Brazil and Turkey. In fact, while imports from Brazil and Turkey increased by a factor of 7, the Community industry lost market shares and suffered important price undercutting. In a highly price sensitive market, such undercutting is extremely detrimental. The loss in market share is in sharp contrast with the brisk increase of consumption in the Community between 1987 and the investigation period.
- (43) The Commission also examined whether other factors than the dumped imports might have caused injury to the Community industry. With regard to the volume and prices of imports originating in other third countries, it was found that these imports also increased. However, their market share was extended between 1985 and the investigation period by only 1,6 percentage points against an increase by 7,5 percentage points of the dumped imports. There is, furthermore, no indication that imports from other sources than Brazil and Turkey have been dumped.
- (44) The Commission also established that within the restructuring process of the sector a certain shift of market share between Community producers has apparently also occurred. On the basis of global market figures relating to the product under consideration in the Community, it can be assessed that about 2,9 percentage points of the total loss of 12 percentage points of the complainants are attributable to the expansion of other non-complaining EC producers. This expansion, however, is significantly lower than that of the dumped imports and cannot, therefore, have had a comparable impact on the complainant industry. In fact, under these conditions, it has to be concluded that the imports

in question, through the effects of dumping, have caused material injury to the Community industry.

E. COMMUNITY INTEREST

- (45) Production of semi-finished alloy steels is a highly specialized branch of the ECSC steel industry. Its total output represents about 12 % of the bulk raw steel production of the Community. The performance of the sector has a non-negligible influence through its linkages on the situation of the ECSC steel industry as a whole. Downstream, the industry is of vital importance for the Community manufacturing industry. It supplies the metal-processing industry with a wide range of special alloy steels, specifically designed for the various applications. Its products are fundamental for mechanical and electrical engineering, the automotive industry, shipbuilding, the aerospace industry and for other metallic articles. Constant research and development has to be carried out to cope with the requirements of the high-tech downstream industries for high-performance materials. In general the industry must be capable of supplying about 600 different alloy steel grades to satisfy the specific needs of its customers and to develop new products to follow the progress in production techniques and increasing quality requirements for the finished products. The industry branches vitally depending on these products represent about 45 % of the total labour force and 40 % of the total production value of Community manufacturing industry.
- (46) It is clearly in the interest of the Community that the production of alloy steels, with its widespread ramifications in other essential sectors of the manufacturing industry, continue under healthy conditions and that the efficiency of the sector not be further weakened by unfair trade practices. It is therefore considered in the Community's interest to take defensive action against the dumped imports.
- (47) The Commission is furthermore of the opinion that protection of the Community industry against unfair price competition is also in the interest of the consumers of the products concerned. The imports against which action is to be taken represent a rather limited range of basic alloy steel grades, which however provide for the ground capacity utilization of the production equipment. Besides the necessity to guarantee the longer-run

security of supplies and the maintenance of quality standards of the basic products, the industry must also be in the position to supply its wide range of specialities at reasonable prices. Phasing out the production of the lower-grade mass products would necessarily lead to a significant deterioration of the cost structure within the coupled production process and would entail significant price increases for the downstream consumers for essential materials.

- (48) The Turkish producer claimed that, except for the significant increase within the investigation period, its market share in the Community has always been at a *de minimis* level and that after the reference period its market share has again been reduced to a level too insignificant to cause injury to the Community industry such that in the actual situation it could not be in the Community's interest to take protective action.
- (49) The Commission considers that, given the volatile nature of the trade pattern in steel products as shown by the sudden increase of Turkish exports of the dumped products, there would be no guarantee to prevent the recurrence of injurious dumping should the investigation be concluded without protective measures. An exemption from anti-dumping measures of imports originating in Turkey because of a reduction in volume during the ongoing investigation would also be discriminatory towards the Brazilian producers/exporters in the light of recital (26).
- (50) On the basis of this consideration, the Commission considers that the interests of the Community call for protective measures against dumped imports of semi-finished products of alloy steel in the form of provisional anti-dumping duties.

F. PROVISIONAL DUTY

- (51) Having established that the dumped imports under consideration have caused material injury to the Community industry and that it is in the Community's interest to take action, the measures envisaged should be sufficient to eliminate the injury caused. However, the measures should not exceed the dumping margins. Since the main cause of the injury is the price undercutting of the Community industry's prices by the exporters, it is considered necessary to eliminate price undercutting where

possible. Therefore, the prices of the exporters should be increased by their price undercutting margin or their dumping margin, whichever is the lower. On this basis, the Commission considers that the following provisional duties should be imposed :

Turkey	16,0 %
Brazil	15,0 %

with the exception of

— Villares Indústrias de Base SA (Vibasa), São Paulo, Brazil	7,4 %
— Aços Finos Piratini SA, Porto Alegre, Brazil	1,7 %

- (52) A period should be fixed within which the parties concerned may make their views known and request a hearing. Furthermore, it should be stated that all findings made for the purpose of this Decision are provisional and may have to be reconsidered for the purpose of any definitive duty which the Commission may propose,

HAS ADOPTED THIS DECISION :

Article 1

1. A provisional anti-dumping duty is hereby imposed on imports of certain semi-finished products of alloy steel, of rectangular (including square) cross-section, hot-rolled or obtained by continuous casting, falling within CN codes 7224 90 09 and 7224 90 15 and originating in Turkey and Brazil.
2. The rate of the duty, based on the free-at-Community-frontier price, not cleared through customs, shall be :
 - 16,0 % for imports of semi-finished products of alloy steel originating in Turkey,
 - 15,0 % for imports of semi-finished products of alloy steel originating in Brazil (Taric additional code : 8625).
3. Notwithstanding paragraph 2, the rate of the provisional anti-dumping duty shall be :
 - 7,4 % for products manufactured by Villares Indústrias de Base SA (Vibasa), São Paulo, Brazil (Taric additional code : 8624),
 - 1,7 % for products manufactured by Aços Finos Piratini SA, Porto Alegre, Brazil (Taric additional code : 8623).

4. The provisions in force concerning customs duties shall apply.

5. The release for free circulation in the Community of the products referred to in paragraph 1 shall be subject to the provision of a security, equivalent to the amount of the provisional duty.

Article 2

Without prejudice to Article 7 (4) (b) and (c) of Decision No 2424/88/ECSC, the parties concerned may make known their views in writing and apply to be heard orally

by the Commission within one month of the date of entry into force of this Decision.

Article 3

This Decision shall enter into force on the day following its publication in the *Official Journal of the European Communities*.

Subject to Articles 11, 12 and 13 of Decision No 2424/88/ECSC, Article 1 of this Decision shall apply for a period of four months, unless the Commission adopts definitive measures before the expiry of that period.

This Decision shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 30 March 1992.

For the Commission

Frans ANDRIESEN

Vice-President

COMMISSION DECISION No 1775/92/ECSC

of 30 June 1992

imposing a definitive anti-dumping duty on imports of certain semi-finished products of alloy steel, originating in Turkey and Brazil, definitively collecting the provisional anti-dumping duty imposed on such imports and accepting an undertaking offered in connection with the anti-dumping proceeding concerning imports of these products

E COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Coal and Steel Community,

Having regard to Commission Decision No 2424/88/ECSC of 29 July 1988 on protection against dumped or subsidized imports from countries not members of the European Coal and Steel Community⁽¹⁾, and in particular Articles 10 and 12 thereof,

After consultations within the Advisory Committee as provided for by the above Decision,

Whereas :

A. PROVISIONAL MEASURES

- (1) The Commission, by Decision No 891/92/ECSC⁽²⁾, imposed a provisional anti-dumping duty on imports of certain semi-finished products of alloy steel, originating in Turkey and Brazil.

B. SUBSEQUENT PROCEDURE

- (2) Following the imposition of the provisional anti-dumping duty, some exporters requested and were granted an opportunity to be heard by the Commission or made submissions expressing their views on the duty.
- (3) Upon request, the parties were informed of the essential facts and considerations on the basis of which it was intended to recommend the imposition of definitive duties and the definitive collection of amounts secured by way of a provisional duty. They were also granted a period within which to make representations subsequent to the disclosure.
- (4) The oral and written comments submitted by the parties were considered and, where appropriate, the

Commission's findings were modified to take account of them.

C. PRODUCT UNDER CONSIDERATION

- (5) After the imposition of provisional duties it became apparent that, under the product description given in recital 11 and Article 1 (1) of Decision No 891/92/ECSC, the duties apply to certain semi-finished products of alloy high-speed steel falling within CN code 7224 90 15 to which the investigation did not relate. It is therefore considered appropriate to modify the product description as follows in order to exclude certain alloy high-speed steels from the application of the duty : semi-finished products of alloy steel, of rectangular (including square) cross-section, hot-rolled or obtained by continuous casting, excluding high-speed steel, falling within CN codes 7224 90 09 and ex 7224 90 15.

D. DUMPING

Turkey

- (6) No new evidence on dumping has been received since the imposition of the provisional duty and the Commission therefore considers its findings on dumping as set out in Decision No 891/92/ECSC to be definitive.

Consequently, the preliminary determination on dumping concerning imports from Turkey are confirmed.

Brazil

- (7) On the basis of the dumping calculation described in recitals 15 to 18 and 20 to 25 of Decision No 891/92/ECSC, the Commission provisionally established a different margin of dumping for each of the four Brazilian producers which cooperated during the preliminary investigation.

- (8) As no new evidence on dumping has been received since the imposition of the provisional duty in respect of exports made by Aços Anhanguera

⁽¹⁾ OJ No L 209, 2. 8. 1988, p. 18, as corrected in OJ No L 273, 5. 10. 1988, p. 19.

⁽²⁾ OJ No L 95, 9. 4. 1992, p. 26.

(Villares) SA, São Paulo, Brazil and by Aços Finos Piratini SA, Porto Alegre, Brazil, the findings on dumping with regard to exports made by these two producers, as set out in Decision No 891/92/ECSC, are therefore considered to be definitive.

margin is in consequence definitively established at 8,5 % of the cif Community frontier export prices.

E. DUMPING MARGINS

- (9) Regarding the provisional dumping determination for Villares Indústrias de Base SA (Vibasa), this producer claimed that the Commission, in constructing normal value, had included in the global amount of selling, general and administrative expenses added to manufacturing costs, certain directly related selling expenses in the domestic market which were not incurred in export transactions to the Community and requested an adjustment under Article 2 (10) (c) (i) and (v) of Commission Decision No 2424/88/ECSC.
- (10) On the basis of the evidence provided by the exporter, the Commission accepted this claim and amended the calculation of the weighted average dumping margin accordingly to be definitively established at 4,9 % of the cif Community frontier export prices.
- (11) Regarding the provisional dumping determination for Companhia Aços Especiais Itabira (Acesita), it was claimed by the exporter that the Commission had overestimated the impact of inflation on production costs used for the construction of normal value by applying an incorrect index for inflation adjustment.

- (15) The weighted average margins of dumping definitively established and expressed as a percentage the cif Community frontier export prices are follows :
- | | |
|--|--------|
| — Asil Celik, Istanbul, Turkey | 33,7 % |
| — Aços Anhanguera (Villares) SA, São Paulo, Brazil | 15,0 % |
| — Aços Especiais Itabira (Acesita), Belo Horizonte, Brazil | 8,5 % |
| — Villares Indústrias de Base SA (Vibasa), São Paulo, Brazil | 4,9 % |
| — Aços Finos Piratini SA, Porto Alegre, Brazil | 1,7 % |
- (16) For those exporters who did not make themselves known in the course of investigation, the Commission based its findings on the facts available in accordance with Article 7 (7) (b) of Decision No 2424/88/ECSC. It is considered appropriate in the present case and in order to avoid circumvention, to use the findings of the investigation and to apply a dumping margin of 33,7 % for Turkey and 15 % for Brazil.

F. INJURY

- (12) The Commission has confirmed that the adjustment index used to bring the export price and production cost to a comparable basis in the month of export excessively inflated production cost. Given the degree of inflation in Brazil, this difference has a significant impact on the result of the dumping calculation and calls for correction.

- (17) As no new evidence regarding injury and causation to the Community industry was received, the Commission confirms the conclusion on injury reached in Decision No 891/92/ECSC.

G. COMMUNITY INTEREST

- (13) It was further claimed and evidence provided that certain items in Acesita's financial expenses were related to other activities in the group, in particular Acesita's holding in affiliated companies and should therefore be considered non-operational with regard to production and sales of the products concerned by the proceeding.
- (14) On the basis of the evidence submitted, the Commission took account of the arguments raised by the exporter and revised the dumping calculation for Acesita. The weighted average dumping

- (18) No observations were received from any user of the products concerned by the present proceeding and subject to provisional anti-dumping duties, within the time limit laid down in Article 2 of Decision No 891/92/ECSC.
- (19) The Commission, therefore, confirms its conclusions that the interests of the Community call for protective measures against dumped imports of semi-finished products of alloy steel, originating in Turkey and Brazil.

H. RATE OF DEFINITIVE DUTY

Turkey

- (20) With regard to exports from Turkey the provisional findings of the Commission having been confirmed, the rate of the definitive anti-dumping duty should be the same as the amount of the provisional anti-dumping duty.

Brazil

- (21) With the exception of those exports made by Vibasa and Acesita, the provisional findings of the Commission having been confirmed, the rate of the definitive duty should be the same as the rate of the provisional anti-dumping duty.
- (22) With regard to exports made by Vibasa or Acesita and in the light of the findings in recitals (9) to (14), the rate of the definitive duty should be equal to the dumping margin which has finally been calculated on the basis of the new elements presented by the exporters concerned since the injury level as determined in the provisional decision and definitively determined is higher than this margin.

I. UNDERTAKING

- (23) One exporter of the Turkish product, Asil Celik, having been informed that the main findings of the preliminary investigation would be confirmed, offered an undertaking concerning its exports of semi-finished products of alloy steel to the Community.
- (24) The effect of this undertaking will be to revise the export prices of the products concerned to the Community to an extent sufficient to eliminate the injury caused to the Community industry. The Commission believes that, administratively, it will be possible to verify that this undertaking is being respected. In view of this, the Commission considers that the undertaking offered is acceptable.
- (25) Should this undertaking not be complied with or be withdrawn by the producer concerned, the Commission could, in accordance with Article 10 (6) of Commission Decision No 2424/88/ECSC, immediately impose a provisional duty on the basis of the results and conclusions of this investigation. Subsequently, a definitive duty could also be imposed by the Commission on the basis of information gathered in this investigation.
- (26) The Advisory Committee has been consulted in this course of action and has raised no objection.

J. COLLECTION OF PROVISIONAL DUTY

- (27) In view of the dumping margins found and the seriousness of the injury caused to Community producers, it is considered necessary that amounts secured by way of provisional anti-dumping duty should be definitively collected to the extent of the amount of the duty definitively imposed and that amounts exceeding these duties should be released.
- (28) In respect of recital (5), it is appropriate that any securities pledged by way of provisional anti-dumping duty on imports of certain semi-finished products of alloy high-speed steel, falling within CN code ex 7224 90 15 and originating in Turkey and Brazil, be released.

HAS ADOPTED THIS DECISION :

Article 1

The undertaking given by Asil Celik Sanayi ve Ticaret A.S., Istanbul, Turkey, is hereby accepted.

Article 2

1. A definitive anti-dumping duty is hereby imposed on imports of certain semi-finished products of alloy steel, of rectangular (including square) cross-section, hot-rolled or obtained by continuous casting, excluding high-speed steel, falling within CN codes 7224 90 09 and ex 7224 90 15 (Taric code : 7224 90 15*90), originating in Turkey and Brazil.

2. The rate of the definitive duty, based on the free-at-Community-frontier price, not cleared through customs shall be :

- 16,0 % for imports of semi-finished products of alloy steel originating in Turkey (Taric additional code : 8672),
 - 15,0 % for imports of semi-finished products of alloy steel originating in Brazil (Taric additional code : 8625).
3. Notwithstanding paragraph 2, the rate of the definitive anti-dumping duty shall be :
- 8,5 % for products concerned manufactured by Aços Especiais Itabira (Acesita), Belo Horizonte, Brazil (Taric additional code : 8670),
 - 4,9 % for products concerned manufactured by Villares Indústrias de Base SA (Vibasa), São Paulo, Brazil (Taric additional code : 8624),
 - 1,7 % for products concerned manufactured by Aços Finos Piratini SA, Porto Alegre, Brazil (Taric additional code : 8623).

4. Notwithstanding paragraph 2, the duty shall not apply for the products concerned manufactured by Asil Celik Sanayi Ve Ticaret AS, Istanbul, Turkey (Taric additional code : 8671).

5. The provisions in force concerning customs duties shall apply.

Article 3

1. The amounts secured by way of provisional anti-dumping duty pursuant to Decision No 891/92/ECSC shall be collected at the rates of duty definitively imposed and any amount secured in excess of the anti-dumping duty definitively imposed shall be released.

2. With regard to the exports made by Asil Celik Sanayi Ve Ticaret AS the amounts secured by way of provisional anti-dumping duty shall be collected in full.

3. The amounts secured by way of provisional anti-dumping duty on imports of semi-finished products of alloy high-speed steel, falling within CN code ex 7224 90 15 shall be released.

Article 4

This Decision shall enter into force on the day following its publication in the *Official Journal of the European Communities*.

This Decision shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 30 June 1992.

For the Commission
Frans ANDRIESEN
Vice-President

K-1

APPENDIX K

DATA PROVIDED BY * ON PRICES PAID FOR SEMIFINISHED PRODUCTS
PRODUCED IN THE UNITED STATES AND IMPORTED FROM BRAZIL**

DATA PROVIDED BY *** ON PRICES PAID FOR SEMIFINISHED PRODUCTS
PRODUCED IN THE UNITED STATES AND IMPORTED FROM BRAZIL

*** provided the following data on prices paid for such products in a form different from that requested (tables K-1 and K-2). *** has consistently maintained that the products purchased from Brazil are different from those purchased from U.S. producers. In its questionnaire response, *** cautioned

* * * * *

Table K-1

Net delivered prices of low-carbon grades 1005-1013 reported by ***, margins of underselling (overselling), and total purchases, by quarters, January 1990-December 1992

* * * * *

Table K-2

Net delivered prices of medium-carbon grades 1015-1044 reported by ***, margins of underselling (overselling), and total purchases, by quarters, January 1990-December 1992

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