

# **Stainless Steel Bar From Brazil, India, Italy, Japan, and Spain**

Investigations Nos. 731-TA-678 through 682 (Preliminary)

Publication 2734

February 1994

**U.S. International Trade Commission**



# U.S. International Trade Commission

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# U.S. International Trade Commission

Washington, DC 20436

## Stainless Steel Bar From Brazil, India, Italy, Japan, and Spain



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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report.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



**PART I: DETERMINATIONS AND VIEWS OF THE COMMISSION**



# UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigations Nos. 731-TA-678 through 682 (Preliminary)

## STAINLESS STEEL BAR FROM BRAZIL, INDIA, ITALY, JAPAN, AND SPAIN

### Determinations

On the basis of the record<sup>1</sup> developed in the subject investigations, the Commission unanimously determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from Brazil, India, Italy, Japan, and Spain of stainless steel bar, provided for in subheadings 7222.10.00, 7222.20.00, and 7222.30.00 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value (LTFV).<sup>2</sup>

### Background

On December 30, 1993, a petition was filed with the Commission and the Department of Commerce by Al Tech Specialty Steel Corp., Dunkirk, NY; Carpenter Technology Corp., Reading, PA; Republic Engineered Steels, Inc., Massillon, OH; Slater Steels Corp., Fort Wayne, IN; Talley Metals Technology, Inc., Hartsville, SC; and the United Steelworkers of America, AFL-CIO/CLC, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV imports of stainless steel bar from Brazil, India, Italy, Japan, and Spain. Accordingly, effective December 30, 1993, the Commission instituted antidumping investigations Nos. 731-TA-678 through 682 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of January 7, 1994 (59 F.R. 1027). The conference was held in Washington, DC, on January 20, 1994, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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

<sup>2</sup> The imported stainless steel bar covered by these investigations comprises articles of stainless steel in straight lengths that have been either hot-rolled, forged, turned, cold-drawn, cold-rolled, or otherwise cold-finished, or ground, having a uniform solid cross section along their whole length in the shape of circles, segments of circles, ovals, rectangles (including squares), triangles, hexagons, octagons, or other convex polygons. Except as specified above, the term does not include stainless steel semifinished products, cut-to-length flat-rolled products (i.e., cut-to-length rolled products which if less than 4.75 mm in thickness have a width measuring at least 10 times the thickness, or if 4.75 mm or more in thickness having a width which exceeds 150 mm and measures at least twice the thickness), wire (i.e., cold-formed products in coils, of any uniform solid cross section along their whole length, which do not conform to the definition of flat-rolled products), and angles, shapes, or sections. Stainless steel bar includes cold-finished stainless steel bars that are turned or ground in straight lengths, whether produced from hot-rolled bar or from straightened and cut rod or wire, and reinforcing bars that have indentations, ribs, grooves, or other deformations produced during the rolling process.



## IEWS OF THE COMMISSION

Based on the record in these preliminary investigations, we unanimously determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of stainless steel bar from Brazil, India, Italy, Japan, and Spain that are alleged to be sold in the United States at less than fair value ("LTFV").<sup>3</sup>

### I. THE LEGAL STANDARD FOR PRELIMINARY INVESTIGATIONS

The legal standard in preliminary antidumping duty investigations requires the Commission to determine, based upon the best information available at the time of the preliminary determination, whether there is a reasonable indication that a domestic industry is materially injured or threatened with material injury by reason of the allegedly LTFV imports. In applying this standard, the Commission weighs the evidence before it to determine whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of material injury; and (2) no likelihood exists that any contrary evidence will arise in a final investigation."<sup>5</sup> The U.S. Court of Appeals for the Federal Circuit has held that this interpretation of the standard "accords with clearly discernible legislative intent and is sufficiently reasonable."<sup>6</sup>

### II. LIKE PRODUCT

#### A. In General

To determine whether there is a reasonable indication that an industry in the United States is materially injured or is threatened with material injury by reason of the subject imports, we first define the "like product" and the "industry." Section 771(4)(A) of the Tariff Act of 1930 (the "Act") defines the relevant 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 . . . ." <sup>7</sup> In turn, "like product" is defined 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 . . . ." <sup>8</sup>

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<sup>3</sup> 19 U.S.C. § 1673b(a). Whether there is a reasonable indication that the establishment of an industry in the United States is materially retarded is not an issue in these investigations.

During the latter stages of these investigations, certain respondents filed documents arguing that the petition in these investigations was not properly filed because certain documents provided to Commerce were not also provided to the Commission and, thus, that these investigations were not properly initiated. They argued that the Commission should re-start the 45-day period under which the Commission must make its preliminary determination after the petition is properly filed. Commission staff contacted staff of the Department of Commerce and discussed how this issue affected the sufficiency of the petition filed on December 30, 1993. Commerce staff indicated that the documentation in question was foreign market survey data pertinent to Commerce's margins calculation. Commerce staff reaffirmed that the petition filed December 30, 1993 was sufficient as filed and did not act to change its determination. See 59 Fed. Reg. 3844 (Jan. 27, 1994).

<sup>4</sup> 19 U.S.C. § 1673b(a); see also American Lamb Co. v. United States, 785 F.2d 994 (Fed. Cir. 1986); Calabrian Corp. v. United States, 794 F. Supp. 377, 386 (Ct. Int'l Trade 1992).

<sup>5</sup> American Lamb, 785 F.2d at 1001; see also Torrington Co. v. United States, 790 F. Supp. 1161, 1165 (Ct. Int'l Trade 1992).

<sup>6</sup> American Lamb, 785 F.2d at 1004.

<sup>7</sup> 19 U.S.C. § 1677(4)(A).

<sup>8</sup> 19 U.S.C. § 1677(10).

Our like product determinations are factual, and we apply the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.<sup>9</sup> We look for clear dividing lines among possible like products, and disregard minor variations.<sup>11</sup> The Department of Commerce ("Commerce") has defined the articles subject to these investigations as "stainless steel bar":

For purposes of these investigations, the term "stainless steel bar" means articles of stainless steel in straight lengths that have been either hot-rolled, forged, turned, cold-drawn, cold-rolled or otherwise cold-finished, or ground, having a uniform solid cross section along their whole length in the shape of circles, segments of circles, ovals, rectangles (including squares), triangles, hexagons, octagons or other convex polygons. Stainless steel bar includes cold-finished stainless steel bars that are turned or ground in straight lengths, whether produced from hot-rolled bar or from straightened and cut rod or wire, and reinforcing bars that have indentations, ribs, grooves, or other deformations produced during the rolling process.<sup>12</sup>

Hot-rolled stainless steel bar is used primarily by cold-finished bar manufacturers (including integrated producers and unrelated converters), manufacturers of forgings, and machine shops (i.e., for the production of fasteners, turbines, and electrical and industrial equipment).<sup>13</sup> The primary customers of cold-finished stainless steel bar are end users for whom tight dimensional tolerance, surface condition, appearance, and finish are critical. The cold-finished product is likely to be used for applications involving beverage, food, pharmaceutical, refinery, power plant, and chemical process industry equipment.<sup>14</sup> Some specific applications of cold-finished stainless steel bar are landing gear, automotive valves and fittings, marine propeller shafts, pump shafts, and drive shafts.<sup>15</sup>

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<sup>9</sup> Torrington Co. v. United States, 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), aff'd, 938 F.2d 1278 (Fed. Cir. 1991).

<sup>10</sup> The Commission generally considers a number of factors in analyzing like product issues, 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 (6) where appropriate, price. See, e.g., Calabrian Corp. v. United States, 794 F. Supp. 377, 382 n.4 (Ct. Int'l Trade 1992); Torrington, 747 F. Supp. at 748-49; Asociacion Colombiana de Exportadores de Flores v. United States, 693 F. Supp. 1165, 1169 n.5 (Ct. Int'l Trade 1988) ("Asocoflores"). No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a given investigation. As discussed herein, however, we have applied the Commission's semifinished products analysis rather than this more traditional framework.

<sup>11</sup> See, e.g., Compact Ductile Iron Waterworks Fittings and Accessories Thereof From the People's Republic of China, Inv. No. 731-TA-621 (Final), USITC Pub. 2671 (Aug. 1993).

<sup>12</sup> See 59 Fed. Reg. 3844, 3845 (Jan. 27, 1994); see Confidential Report ("CR") at I-9-11, Appendix A, Public Report ("PR") at II-7, Appendix A. Commerce also indicated for each investigation:

The stainless steel bar subject to these investigations is currently classifiable under subheadings 7222.10.00, 7222.20.00, and 7222.30.00 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheading is provided for convenience and customs purposes, our written description of the scope of these investigations is dispositive.

59 Fed. Reg. 3844, 3845 (Jan. 27, 1994). Commerce does not include within the definition stainless steel ingots, bloom, or billet, cut length flat-rolled products, wire, and angles, shapes and sections.

<sup>13</sup> CR at I-20, PR at II-12.

<sup>14</sup> CR at I-20, PR at II-12.

<sup>15</sup> CR at I-20-21, PR at II-12.

Stainless steel bar production begins by melting steel with particular properties in an electric arc furnace to cast ingots, bloom or billet.<sup>16</sup> The ingots, bloom or billet are usually channeled through a reheat furnace to be hot-rolled or hot-forged into bar sizes.<sup>17</sup> The bar product that emerges from the hot rolling is termed "black bar." Annealing or other heat treatment is performed, following which the bar product may be subjected to spot conditioning, straightening or mechanical or chemical cleaning of surface oxides (shot blasting, rough turning, or pickling, respectively).<sup>18</sup>

The resultant bar can be further finished (i.e., cold-finished) by processes such as cold drawing or cold rolling, grinding, and polishing.<sup>19</sup> Cold-finished bar may be annealed or otherwise heat treated and descaled after cold drawing or cold rolling (which increases tensile strength and hardness), although these operations necessitate larger tolerance limits because of metal loss in heat treating and cleaning.<sup>20</sup> Cold-formed bars are typically subjected to centerless grinding or grinding and polishing; or they may be cold drawn or cold rolled.<sup>21</sup>

As discussed more fully below, when referring to "hot-rolled" bar, we are considering "black bar" that has been annealed, straightened, de-scaled (pickled, shotblasted, or rough turned). When referring to cold-finished bar, we are considering stainless steel bar that has been further worked beyond these steps for hot-rolled bar, such as cold forming or cold rolling, centerless grinding, smooth turning, and polishing.

## B. Like Product Issues

The first like product issue in these investigations is whether to apply the Commission's traditional six factor paradigm, used to determine whether products at a similar stage of production are a single "like product," or to apply the 5 factor finished/semifinished products analysis, used when analyzing products at different stages of production. Petitioners advocate the use in these investigations of the finished/semifinished like product analysis. They argue that such an analysis is appropriate here to define the like product in terms of a "vertical product differentiation" as in other investigations when "a series of products are manufactured along a vertical production continuum."<sup>22</sup> Petitioners state that all end-use bars are produced from the same initial product: hot-rolled stainless steel bar. They conclude that such an analysis confirms that there is one like product, all stainless steel bar. Respondents disagree with petitioners' process continuum arguments and argue that hot-rolled bar is a separate like product which is not dedicated to end uses for further processing into cold-finished bar any more than wire rod is dedicated to that end use. They note that "approximately one third of cold-finished bar is made from steel wire rod feed stocks" and, thus, "does not follow petitioners' asserted continuum."<sup>23</sup>

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<sup>16</sup> CR at I-13-16, PR at II-9-10.

<sup>17</sup> CR at I-15-16, PR at II-10.

<sup>18</sup> CR at I-16-17, PR at II-11.

<sup>19</sup> CR at I-18-19, PR at II-11. "Cold" refers to the fact that the product is mechanically worked at ambient temperatures. CR at I-18 n.25, PR at II-11 n.25. Some small diameter round stainless steel bar are produced from rod (a coiled product typically supplied in hot rolled, pickled and annealed condition) by de-coiling the rod, straightening it, and cutting it to length. CR at I-19, PR at II-11.

<sup>20</sup> CR at I-18-19, PR at II-11.

<sup>21</sup> CR at I-19, PR at II-11-12.

<sup>22</sup> Petitioners' postconference brief at 4. They also argued in the alternative that even under the six traditional like product factors that the proper like product is all stainless steel bar. We note that the evidence presented for one like product was not entirely satisfactory. We invite all parties in any final investigations to provide more complete information concerning the like product factors generally as well as which like product analysis is more applicable.

<sup>23</sup> Postconference brief of Brazilian Respondent Acos Villares, S.A.; Italian Respondent Cogne S.p.A.; Japanese Respondent Daido Steel Co, Ltd.; and Spanish Respondent Roldan, S.A. Exhibit 3, at 27-28, 29 ("Respondents' joint postconference brief"). We note that the methodology used by

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We believe that the appropriate like product analysis for determining like product treatment of stainless steel bar vis-a-vis hot-rolled versus cold-finished stainless steel bar is the Commission's finished/semifinished products analysis; however, we intend to reexamine which analysis is more appropriate in any final investigations.<sup>24</sup> The record shows that cold-finished bar goes through various stages of production before it reaches its final form. These stages include various forms, including so-called black bar and hot-rolled bar, that are within the scope of the investigation as defined by Commerce. The issues that respondents raise seem to us are more appropriate considerations within the context of the finished/semifinished products analysis rather than addressing whether or not that analysis should be applied.<sup>25</sup>

In applying the finished/semifinished products paradigm to the facts before us, we start by recognizing that there is a disagreement among the parties about the definition of hot-rolled and cold-finished bar. Petitioners view "hot-rolled bar" as bar that has been hot-rolled and not processed further in any way, a product that is also known as "black bar."<sup>26</sup> Respondents, on the other hand define "hot-rolled bar" to include bar that has been subject to certain basic finishing operations such as annealing, straightening, and surface conditioning such as de-scaling by pickling, shot blasting, or rough turning.

For purposes of our analysis we have determined that the product which petitioners define as "hot-rolled" will be termed "black bar" and the product defined by respondents, which is black bar that has been annealed, straightened, de-scaled (pickled, shotblasted, or rough turned) will be termed hot-rolled bar. Such product when sold on the open market generally meets ASTM A484 specifications for hot-rolled products but does not maintain the smooth finish or tight tolerances of a cold-finished product and, thus, does not meet ASTM A484 specifications for cold-finished stainless steel bar.

We now apply the five-factor finished/semifinished products analysis to determine whether hot-rolled bar and cold-finished bar should be considered a single like product. The record contains mixed evidence on the size of the merchant market for hot-rolled stainless steel bar, demonstrating that the range could be from 10 percent to 30 percent of all stainless steel

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<sup>23</sup> (...continued)

respondents, based on import trends and not domestic production, is unsatisfactory. We invite all parties to address this issue further in any final investigations. See, e.g., Stainless Steel Rod from India, Inv. No. 731-TA-638 (Final), USITC Pub. 2704 at II-5, II-10 (Nov. 1993).

<sup>24</sup> Under this analysis, the Commission examines five factors to determine whether parts, components, subassemblies, or semifinished products should be included as the same like product as a finished product. These are: (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 Certain Cased Pencils from the People's Republic of China and Thailand, Inv. Nos. 731-TA-669-670 (Preliminary), USITC Pub. 2713 at I-6, I-7 & n.14 (Dec. 1993); Class 150 Stainless Steel Threaded Pipe Fittings from Taiwan, Inv. No. 731-TA-658 (Preliminary), USITC Pub. 2678 at 8-10 (Sept. 1993).

<sup>25</sup> The application of the semifinished product analysis is not outcome determinative. Based on the analysis the Commission can find one or multiple like products. The arguments raised by respondents, that there are independent uses for hot-rolled bar and that there are other semifinished products which can be made into cold finished bar, are issues to be considered within the context of the semifinished analysis, and are not preconditions for the application of the analysis.

<sup>26</sup> The data discussed herein take into account that petitioners reported no merchant market sales of hot-rolled stainless steel bar due to the definition that they assigned to the product in their questionnaire responses. As noted above, the Commission defines hot-rolled stainless steel bar differently than petitioners. In any final investigations, we will seek data on hot-rolled stainless steel bar as a product that includes annealing, de-scaling (such as by rough turning, pickling, or shot blasting) and straightening.

bar shipments.<sup>27 28</sup> Moreover, most hot-rolled bar that is produced is captively consumed.<sup>29</sup> This captively consumed hot-rolled stainless steel bar is further processed into cold-finished stainless bar. We note, however, that cold-finished stainless bar can be produced from upstream products other than stainless steel bar. For example, stainless steel bar is made from "rotary-forged" bar that is not hot-rolled, and small diameter cold-finished stainless steel bar is produced from coiled rod.<sup>30</sup> With respect to non-captive end uses for hot-rolled bar, end-users purchase it as an input to produce fasteners, turbines and electrical equipment, among other things.<sup>31</sup>

With respect to the necessity for and costs of further processing, the input costs of feedstock stainless metal and the initial forming steps for hot-rolled bar are high. Further processing during the cold-finishing stages will increase costs of the finished product.<sup>32</sup> The magnitude of these reported costs differ depending upon whether they are reported by integrated producers or cold finishers. Further, the amount of the costs will depend upon the amount of extra processing performed for particular products. We will explore these issues further in any final investigations, particularly in the context of how such costs are accounted for in the industry.<sup>33</sup>

Hot-rolled and cold-finished stainless bar are not interchangeable from a technical or consumer standpoint,<sup>34</sup> and the former is generally dedicated for use in producing the latter.<sup>35</sup> Hot-rolled sales dedicated to end uses other than for further processing into cold-finished stainless bar are small – approximately 10 percent of total open market shipments of all stainless steel bar – in comparison with the large amount of hot-rolled stainless bar dedicated to further processing into cold-finished stainless bar.<sup>36 37</sup>

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<sup>27</sup> Transcript of Commission Meeting, February 9, 1994; CR at I-14-20, I-41, PR at II-9-12, II-22; transcript at 44, 120, 150; Respondents' joint postconference brief at 9, 14, Exhibit 3 at 23, Exhibit 3.P; Japanese respondents' postconference brief at 8. We invite all parties to provide as complete information as possible in any final investigations.

<sup>28</sup> Commissioner Rohr notes that the actual amount of hot-rolled bar that is dedicated for use is at issue in these investigations because the calculation of the amount depends on the definition of the product one employs. This will be a matter to further investigate in any final investigations.

<sup>29</sup> CR at I-14-20, I-41, PR at II-9-12, II-22; transcript at 44, 120, 150; Respondents' joint postconference brief at 9, 14, Exhibit 3 at 23, Exhibit 3.P; Japanese respondents' postconference brief at 8. We note that some domestic producers produce stainless steel bar from billet that they have purchased on the open market rather than casting their own billet.

<sup>30</sup> Transcript at 95-96; CR at I-19, PR at I-11.

<sup>31</sup> CR at I-20, I-30-32, PR at II-12, II-17-19.

<sup>32</sup> CR at I-16-18, I-30-32, I-41, PR at II-10-11, II-17-19, II-22; Transcript of Commission Meeting, Feb. 9, 1994. Respondents argue that the costs are significant when proceeding from hot-rolled operations to cold-finishing operations. Respondents' joint postconference brief at 24-28. Petitioners, however, argue that any increase in costs are uniformly small. Petitioners' postconference brief at 19.

<sup>33</sup> We note that some of the additional processing steps for certain cold-finished products involve reannealing or re-pickling, which are associated with the hot-rolling stages of production. This fact may create difficulty with adopting respondents' like product definition or drawing a clear line between hot-rolled and cold-finished stainless bar.

<sup>34</sup> CR at I-21, PR at II-12.

<sup>35</sup> Interchangeability is less important as a factor in this industry because even among various cold-finished bars, one type will not be interchangeable with another if it does not meet the precise specifications demanded for each particular end use application. Transcript at 45, 47.

<sup>36</sup> Transcript of Commission Meeting, Feb. 9, 1994. Petitioners argue that "[a]ll hot-rolled stainless steel bar product is dedicated to an end use in the form of a cold-formed product" and is unsuitable for sale on the open market unless it undergoes certain cold-finishing operations. Petitioners' postconference brief at 20.

Respondents argue that because hot-rolled stainless bar does not have the essential character of cold-finished stainless bar, the former is not dedicated to the manufacture of the latter. Respondents' joint postconference brief Exhibit 3, at 27-28, 29. They note that some hot-rolled stainless bar is sold

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With regard to the final factor, the Commission generally focuses on product function in evaluating the "essential characteristic."<sup>36</sup> Although hot-rolled and cold-finished stainless bar have the similar characteristic of being corrosion resistant, customers and producers in the marketplace consider this to be a minimum qualification and are further concerned with the tightness of tolerance and smoothness of the product, for which all stainless steel bar in the domestic market place must meet ASTM A484 specifications.<sup>39</sup>

The five factors discussed above could support one like product or two like products depending on how particularly the essential physical characteristic of stainless steel bar is defined. For purposes of these preliminary investigations, we define one like product, all stainless steel bar, in large part because of the inability based on the available information drawn from these investigations to draw a clear line between hot-rolled stainless steel bar and cold-finished stainless steel bar.<sup>40</sup>

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<sup>36</sup> (...continued)

to end users for the manufacture of forgings, angles and light structurals or sold as flats and squares to meet electrical and industrial equipment. *Id.* Exhibit 3, at 28.

<sup>37</sup> Commissioner Brunsdale and Commissioner Crawford do not join this reasoning. First, they do not find that merchant market sales of hot-rolled bar are insignificant. They note that just last summer the Commission distinguished semifinished steel products from finished steel products when an independent market existed for only six percent of the upstream product. See Certain Special Quality Carbon and Alloy Hot-Rolled Steel Bars and Rods and Semifinished Products from Brazil, Inv. No. 731-TA-572 (Final), USITC Pub. 2662 at 13 (July 1993). Second, the fact that stainless steel bar is also produced from other inputs such as stainless steel wire rod diminishes, but by no means eliminates, the importance of the extent of "dedicated use" of hot-rolled bar. Third, we note that, in general, an upstream product that is largely consumed by a downstream industry and therefore largely "dedicated" may nonetheless still have other uses that could potentially consume large amounts of the product. The demand from such potential users will depend, among other things, on the relative prices of substitute upstream products.

<sup>38</sup> See, e.g., Certain Cased Pencils from the People's Republic of China and Thailand, Inv. No. 731-TA-669-670 (Preliminary), USITC Pub. 2713 at I-6, I-7 & n.14 (Dec. 1993) (essential function was ability to be used as a writing instrument); Generic Cephalixin from Canada, Inv. No. 731-TA-423 (Final), USITC Pub. 2211 at 8-9 (Aug. 1989) ("therapeutic quality" of finished product found in bulk cephalixin); Thermostatically Controlled Appliance Plugs and Internal Probe Thermostats Therefor from Canada, Japan, Malaysia, and Taiwan, Inv. Nos. 701-TA-292, 731-TA-400, 402-04 (Final), USITC Pub. 2152 at 7-8 (Jan. 1989) (essential characteristic of finished plug, ability to regulate temperature, imparted by component at issue); Dynamic Random Access Memory Semiconductors of 256 Kilobytes and Less from Japan, Inv. No. 731-TA-300 (Preliminary), USITC Pub. 1803 at 6-7 (Jan. 1986) (essential characteristic of completed DRAM, memory capacity, imparted by die).

<sup>39</sup> Transcript at 112-113, 123-124, 132, 167-169, 183, 221-223, 132; Respondents' joint postconference brief at 3-4, Exhibit 3, at 4-7, 15-20.

<sup>40</sup> Commissioner Brunsdale notes that she has criticized the five-factor test in rather harsh terms. See Sulfur Dyes from China, India, and the United Kingdom, Inv. Nos. 731-TA-548, 550, and 551 (Preliminary), USITC Pub. No. 2514, at 36-37 (May 1992); Magnesium from Canada, Inv. Nos. 701-TA-309 and 731-TA-528 (Final), USITC Pub. 2550 AT 5-11 (Aug. 1992). She and Commissioner Crawford fully concur in their colleagues' declared intention to adopt a different test, one that asks in various ways whether an identity of interest exists between the producers of the upstream and downstream products, from now on. In these investigations, however, they too find there to be only one like product, in large part because the data distinguishing hot-rolled and cold-finished steel products simply do not exist.

They also note two other like product issues that should be explored fully in any final investigations. The first is the question of whether steel rod should be included in the like product because it is a semifinished form of at least small diameter cold finished bar. This is a possibility that they alluded to in Stainless Steel Wire Rod from India, Inv. No. 731-TA-638 (Final), USITC Pub. 2704, at I-22 (Nov. 1993). Second, some of the respondents in these preliminary investigations have forcefully argued that the most similar domestic product to imported true flat bar is Gauer bar, or

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While we have applied our traditional five-factor finished/semifinished products analysis to these preliminary investigations, we have decided to review and reexamine the analysis itself as well as its application in any final investigations. The current five-factor paradigm was enunciated by the Commission in 1985 and was merely a listing of various factors that the Commission had considered in the relatively few semifinished products cases it had considered up to that time.<sup>41</sup> The Commission did not at the time explain or provide a systematic framework for the analysis. Since that time, we have applied the five factors in a variety of factual situations.

We have come to recognize both the utility and the shortcomings of the paradigm. In many situations, the factors overlap or are inconsistent. Some, factors we believe, are unnecessarily vague or too subjective. For these reasons, we have developed a new paradigm that will be reflective of the experience the Commission has gained over the years with the problems of analyzing semifinished products. Our purpose is to identify a product or products, the producers of which are in as similar a position as possible to one another vis-a-vis the subject imports.<sup>42 43</sup>

To begin with, we believe that the "dedicated for use" criterion is obviously of continuing relevance in this context. For example, the greater the extent to which an upstream article of any kind is "dedicated for use" to the production of a particular downstream article, the more likely it is that producers of both products will be in the same position with respect to the imports of the articles. In such a case, it would therefore be more reasonable to consider the two articles as a single like product.

We have also come to recognize that the "independent use" criterion is merely the reverse side of the dedicated for use criterion. The greater the number of independent uses for an upstream product or the amount of an upstream product that goes to independent uses, the less that imports of any one single downstream product will affect that upstream product. These two factors should be viewed as the two ends of a continuum consisting of a single factor.

In the traditional five-factor analysis, we look at both independent uses and markets. While we have come to recognize dedicated use and independent use as a single factor, independent markets are a different factor. Even if an upstream article is "dedicated for use" in a particular downstream market, there can be independent markets for the two articles. This would be the case, for example, if there is an independent group of producers who process the upstream product, having purchased it in an open, competitive market. In such a situation, the articles are more likely to comprise separate like products than if production is integrated or performed under some form of tolling arrangements. The existence of an independent market adds a separate layer of competition between buyers and sellers which attenuates the impact of the buying and selling of the downstream imports on the upstream product.

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<sup>40</sup> (...continued)

other steel products cut from plate. This may well be a fruitful line for the parties to explore in any final investigations, and Commissioners Brunsdale and Crawford encourage them to do so.

<sup>41</sup> See Erasable Programmable Read Only Memories from Japan, Inv. No. 731-TA-288 (Preliminary), USITC Pub. 1778 (Nov. 1985); see also, e.g., Forged Undercarriage Components from Italy, Inv. Nos. 701-TA-201, 731-TA-133 (Preliminary), USITC Pub. 1394 (June 1983) (first Title VII Commission determination squarely addressing whether unfinished and finished articles should be treated as a single like product).

<sup>42</sup> See 19 U.S.C. § 1677(10). Our five-factor paradigm is a specific application of the statutory language of "characteristics and uses" in the context of vertically differentiated products.

<sup>43</sup> Chairman Newquist notes that it is his sense that this discussion is not intended to depart radically from past Commission practice, but rather is intended to refine the elements of the Commission's analysis and provide clearer guidance to the parties and the public regarding how the Commission approaches this element of the determination.

We have therefore determined that the existence of independent markets should remain a separate factor in our analysis. We will examine this factor by looking, for example, at the perception of the buyers and sellers in the markets and the historical conditions of competition.

A third criterion that we believe should be relevant is the degree to which the physical characteristics and functions of the downstream article are present in the upstream article. Essentially, the less the physical characteristics of the upstream article are changed in the downstream processing, or the fewer the additional functions that are added to the product during this processing, the more likely it should be that the two articles form a single like product. The more that the functions are different, or the fewer physical similarities, the more such different functions or characteristics can play a role in the competition in the marketplace. The fewer such differences, the more producers of such articles are in a similar situation with respect to the imports and, hence, the more apparent it is that the articles represent a single like product.

A fourth criterion should be the relative cost or value of the upstream and downstream articles. This criterion is a modification of the current "necessity for and cost of further processing." It eliminates the first part of the existing criterion as unnecessary. The necessity for further processing is subsumed into our examination of dedicated and independent uses. If an article does have independent uses, it does not appear to matter whether those independent uses are for the upstream article in an "as is" condition or whether those independent uses require the upstream article to be further processed into something other than the particular downstream article under investigation.

In applying this criterion, the less the cost or value differential between the two articles, the greater the identification of the two as a single like product. Obviously, a cost and a value calculation may lead to somewhat different results. Depending upon the relationship between the various entities in the production chain, one or the other type of calculation might not be possible. Where there are independent producers at various stages of the process, a value calculation is more likely to be possible, whereas in an integrated relationship, cost might be the only calculation available. We believe it will be more useful to have the flexibility to consider either.

Finally, a fifth criterion should be the nature and significance of the production process through which the upstream article is processed into the downstream article. The significance of the activity necessary to transform the unfinished to the finished product is important. For example, if the process requires separate facilities or entirely separate production lines, it is more likely to be significant than if it is merely one additional station on a single line. The amount of capital equipment and labor used in the processing is also a measure of the significance of the process.

The five factors which emerge are thus:

1. Is the upstream article dedicated to the production of the downstream article or does it have independent uses?
2. Are there perceived to be separate markets for the upstream and downstream articles?
3. How different are the physical characteristics and functions of the upstream and downstream articles?
4. What are the differences in the costs or value of the vertically differentiated articles?
5. What is the significance and extent of the processes used to transform the upstream into the downstream articles?

These factors may be better suited to defining the like product in antidumping and countervailing duty investigations than the current five-factor analysis. We invite all parties

to comment on this analysis in any final investigations. We expect to refine further these factors in future investigations and to determine their suitability for use in the many different factual scenarios involving upstream and downstream articles.

### III. DOMESTIC INDUSTRY

#### A. Domestic Producers

Having found one like product consisting of all stainless steel bar, we find that the domestic industry consists of the domestic producers of stainless steel bar. Within the domestic industry we have included independent cold finishers. These producers reportedly purchase hot-rolled stainless steel bar and perform cold-finishing processes to the bar.<sup>44</sup> We note that the information on these firms is limited, however, and that some of these operations may be tolling operations. We will seek additional information on the operations of cold finishers in any final investigations.

#### B. Captive Consumption

At least 8 domestic firms are integrated producers that captively consume a substantial portion of their hot-rolled stainless steel bar for further processing into cold-finished stainless steel bar.<sup>45</sup> This captive consumption comprises a substantial percentage of overall hot-rolled stainless steel bar production.<sup>46</sup>

Notwithstanding petitioners' arguments to the contrary,<sup>47</sup> the Commission has found the consideration of captive and open market sales data important to its analysis and has consistently found that the domestic industry includes all U.S. production regardless of whether the production is for captive or merchant market consumption.<sup>48</sup> As the Commission has also consistently found, however, the extent of captive consumption may be relevant as a condition of competition, and subject imports may not affect merchant market production and captive market production in the same way.<sup>49</sup> Accordingly, we have taken captive production into account in these investigations.

### IV. CONDITION OF THE DOMESTIC INDUSTRY

In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of alleged LTFV imports, the Commission considers all relevant economic factors which have a bearing on the state of the industry in the United States. These factors include output, sales, inventories, capacity utilization, market share,

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<sup>44</sup> CR at I-31, PR at II-18; Respondents' joint postconference brief at 13-14.

<sup>45</sup> CR at I-31, PR at II-18.

<sup>46</sup> Transcript at 44, 120, 150; Respondents' joint postconference brief at 9, 14, Exhibit 3 at 23, Exhibit 3.P; Japanese respondents' postconference brief at 8.

<sup>47</sup> Petitioners' postconference brief at 27-29.

<sup>48</sup> See, e.g., 19 U.S.C. 1677(4)(A) &(D); Certain Flat-Rolled Carbon Steel Products from Argentina, Australia, Austria, Belgium, Brazil, Canada, Finland, France, Germany, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand, Poland, Romania, Spain, Sweden, and the United Kingdom, Inv. Nos. 701-TA-319-332, 334, 336-342, 344, and 347-353 and 731-TA-573-579, 581-592, 594-597, 599-609, and 612-619 (Final), USITC Pub. 2664 at 17 (Aug. 1993) ("Certain Flat-Rolled Steel"); Polyethylene Terephthalate Film, Sheet and Strip from Japan, and the Republic of Korea ("PET Film"), Inv. Nos. 731-TA-458 and 459 (Final), USITC Pub. 2383 at 19 (May 1991); Potassium Hydroxide from Canada, Italy and the United Kingdom, Inv. Nos. 731-TA-542-544 (Preliminary), USITC Pub. 2482 at 9 and 10 (Feb. 1992).

<sup>49</sup> See, e.g., Certain Flat-Rolled Steel, USITC Pub. 2664 at 15 and 17 (Aug. 1993); Electrolytic Manganese Dioxide from Greece and Japan, Inv. Nos. 731-TA-406 and 408 (Final), USITC Pub. 2177 at 9 (Apr. 1989).

employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, and research and development. No single factor is determinative, and we consider all relevant factors "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."<sup>50</sup> In evaluating the condition of the domestic industry, we look at the domestic industry as a whole.<sup>51</sup>

In examining the condition of the domestic industry, we discuss the above industry indicators for all domestic stainless steel bar, whether captively consumed or sold on the merchant market. We note, however, that the domestic stainless steel bar industry involves both the production of hot-rolled stainless steel bar and cold-finished stainless steel bar. We also considered that most of domestic hot-rolled stainless steel bar is captively consumed to be further processed into cold-finished stainless steel bar.<sup>52</sup>

Apparent U.S. consumption of stainless steel bar increased by quantity from 160,487 short tons in 1990 to 180,221 short tons in 1991, then remained virtually constant in 1992 at 180,258 short tons; the increase overall was 12.3 percent from 1990 to 1992.<sup>53</sup> Consumption increased by 16.3 percent from interim period (January-September) 1992 to interim period (January-September) 1993. On the basis of value, apparent U.S. consumption of stainless steel bar increased from approximately \$551 million in 1990 to \$607.9 million in 1991, or by 10.3 percent. Consumption by value declined by virtually the same amount in 1992 falling to about \$558.5 million. Consumption by value was 5.0 percent higher, however, in interim 1993 (\$453 million) than in interim period 1992 (\$431.6 million).

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<sup>50</sup> 19 U.S.C. § 1677(7)(C)(iii).

<sup>51</sup> See, e.g., Welded Steel Pipe from Malaysia, Inv. No. 731-TA-644 (Preliminary), USITC Pub. 2620 at 19-20 and n.79 (Apr. 1993) ("The Commission may take into account the departures from an industry or the unique circumstances of individual companies, but ultimately must assess the condition of the industry as a whole, and not on a company-by-company basis.") (citing Metallwerken Nederland B.V. v. United States, 728 F. Supp. 730, 735 (Ct. Int'l Trade 1989)).

<sup>52</sup> We also note that Voluntary Restraint Agreements ("VRAs") on stainless steel bar expired on Mar. 31, 1992. See CR at I-24-26, PR at II-14. Although stainless steel bar was a separate category under the VRAs, it is difficult to assess whether the VRA quotas were filled because of product shifting. *Id.* As noted above, the data presented below take into account that petitioners reported no merchant market sales of hot-rolled stainless steel bar due to the definition that they assigned to the product in their questionnaire responses.

We note that we do not draw adverse inferences here, despite respondents' request that we do so, because there is some ambiguity associated with terms in the questionnaires that could have contributed to petitioners' failure to report relevant data. In any final investigations, we will require petitioners to report data on hot-rolled stainless steel bar consistent with the definition we use above.

<sup>53</sup> Data referred to in this paragraph are summarized in Table 2, CR at I-27, PR at II-16; Table C-1, CR at C-3, PR at C-3. With regard to all stainless steel bar, U.S. producers reported data for all finished bar sold by the firm, which in their view constituted cold-formed bar (this is reflected by their responses to the questionnaires, where essentially no trade sales of hot-rolled bar were reported). Thus none of the data with regard to those indicators represents so-called work-in-progress or unfinished bar. Thus, there should be no double counting with regard to any of the data. Company transfers of finished bar are included in U.S. shipments and in consumption.

Tables comprising all subject stainless steel bar imports are made up of two different data sets, which are presented and combined into one set of consumption and market share calculations on Tables 20 and C-1. The first data set presents imports of all stainless steel bar, and is presented on pages CR at I-78, PR at II-48 and CR at C-3, PR at C-3. These data are from official U.S. import statistics for HTS subheadings 7222.10.00, 7222.20.00, and 7222.30.00. Therefore, they contain imports of all varieties of finished bar, both cold-formed and hot-finished. The second data set, presented on Tables 4, 5, and C-1, CR at I-39, I-42, and C-4, PR at II-23-24, and C-4, comprises data on the U.S. industry producing stainless steel bar, as compiled from questionnaire responses. These data relate to finished stainless steel bar, which to most members of the domestic industry signifies cold-formed stainless steel bar. Shipments comprise both open-market and captive shipments, but of finished bar. The two data sets are combined at the top of CR at C-3, PR at C-3, showing the quantity and value of U.S. consumption and the respective market shares of imports and U.S. shipments.

Domestic production of stainless steel bar increased from 135,826 short tons in 1990 to 148,399 short tons in 1992, or by 9.3 percent.<sup>54</sup> Domestic production of stainless steel bar was higher by 5.3 percent in interim period 1993 compared to interim period 1992. Capacity to produce stainless steel bar increased by 11.1 percent from 1990 to 1992, with all of the increase occurring in 1990-1991, as the 1992 levels declined but were still higher than in 1990. Interim period 1993 capacity was 1.5 percent lower than during the comparable period in 1992. Capacity utilization rates for stainless steel bar were low throughout the period of investigation – never rising above 60 percent – and decreased from 1990 to 1992, but were higher in interim period 1993 as compared to interim period 1992.

The domestic industry's U.S. shipments of stainless steel bar increased by quantity from 124,705 short tons in 1990 to 133,539 short tons in 1992, with all of the increase occurring from 1990 to 1991.<sup>55</sup> U.S. shipments of stainless steel bar were also higher in interim period 1993 (111,799 short tons) than in interim period 1992 (101,494 short tons). Conversely, domestic shipments measured by value decreased from \$443.2 million in 1990 to \$436.4 million in 1992, with all of the decrease occurring from 1991 to 1992. U.S. shipments by value in interim period 1993 were higher (\$345.7 million) than in interim period 1992 (\$344.7 million).

Domestic producers' stainless steel bar end-of-period inventories were 28,197 short tons in 1990 as compared to 27,660 short tons in 1992.<sup>56</sup> Interim period 1993 inventory levels were 27,212 short tons as compared to 24,798 short tons in interim period 1992. Inventories as a share of U.S. shipments were virtually unchanged throughout the period of investigation (21.0 percent in 1990, 20.9 percent in 1992, 18.3 percent in interim 1992, and 18.2 percent in interim 1993).<sup>57</sup>

Employment in the domestic stainless steel bar industry fluctuated during the period of investigation.<sup>58</sup> The number of workers employed increased over 5 percent from 1990 to 1991, before dropping by nearly the same amount in 1992. There were 4.9 percent more workers in interim period 1993 than in interim period 1992. The number of hours worked by employees increased very slightly (0.3 percent) in 1991 before declining by 2.7 percent in 1992. The number of hours worked were 5.2 percent higher in interim period 1993 than in interim period 1992. Hourly compensation increased throughout the period; the increase continued in interim period 1993 as compared to interim period 1992.

The financial performance indicators for the domestic stainless steel bar industry generally declined throughout the period of investigation.<sup>59</sup> The stainless steel bar industry experienced an increase in net sales by quantity of 9.3 percent and 8.2 percent in value from 1990 to 1991.<sup>60</sup> From 1991 to 1992, net sales increased by 0.4 percent in quantity but

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<sup>54</sup> Data referred to in this paragraph are summarized in Table 4, CR I-39, PR at II-23; Table C-2, CR at C-4, PR at C-4.

<sup>55</sup> Data on U.S. shipments referred to in this paragraph are summarized in Table 5, CR at I-42, PR at II-24; Table C-1, CR at C-4, PR at C-4.

<sup>56</sup> Data on inventories referred to in this paragraph are summarized in Table 6, CR at I-44, PR at II-25; Table C-1, CR at C-4, PR at C-4.

<sup>57</sup> We note that inventories of domestic producers were reported as inventories already sold but not yet delivered and are of product produced to specific customer order, but which has not yet been delivered to the customer. U.S. producers generally do not sell from stock, except for instances in which a standard grade can be sold to more than one customer. CR at I-43, PR at II-25; Transcript of Commission Meeting, Feb. 9, 1994. Thus, decreasing inventories may be an indicator of decreased sales rather than increased sales and vice versa. We intend to explore this issue further in any final investigations.

<sup>58</sup> Data referred to in this paragraph are summarized in Table 7, CR at I-45, PR at II-26; Table C-1, CR at C-4, PR at C-4.

<sup>59</sup> Data referred to in this paragraph are summarized in Table 9, CR at I-51, PR at II-30; Table C-1, CR at C-4, PR at C-4.

<sup>60</sup> *Id.* We note that these gains from 1990 to 1991 largely reflect the entry of two producers in the market. See CR at I-53, PR at II-28.

decreased by 5.1 percent in value. Net sales in interim period 1993 were 10.5 percent higher by quantity than in interim period 1992 and 0.8 percent higher by value.

During the period of investigation, the domestic stainless bar industry experienced an overall decrease in gross profits.<sup>61</sup> Between 1990 and 1991, gross profits decreased by 28.2 percent. In 1992, gross profits decreased 55.5 percent, leaving such profits 68.1 percent lower than their 1990 levels. Gross profits were 80 percent higher in interim period 1993 than interim period 1992.

Operating income for the domestic stainless steel bar industry decreased \$20 million, or by over 82 percent, from 1990 to 1991.<sup>62</sup> In 1992, operating income decreased nearly \$27 million (594.8 percent) from its level in 1991, and became an operating loss. The interim period comparisons reveal a reduced operating loss in interim period 1993. The operating income margin (ratio of operating income to net sales) declined by 10.8 percent from 1990 to 1992 and remained negative in both interim periods.<sup>63</sup>

The cost of goods sold for the domestic stainless steel bar industry increased from \$388.2 million in 1990 to \$439.6 in 1991 but decreased slightly to \$436.8 in 1992, representing a 12.5 percent increase in cost of goods sold from 1990 to 1992.<sup>64</sup> The cost of goods sold for the domestic industry were 2.1 percent lower in interim period 1993 as compared to interim period 1992. Unit cost of goods sold increased from \$3,110 in 1990 to \$3,225 in 1991 (an increase of 3.7 percent) but decreased to \$3,188, a 1.1-percent drop, from 1991 to 1992. The unit costs of goods sold was 11.3 percent lower in interim period 1993 than in interim period 1992.

Selling, general, and administrative (SG&A) expenses for the stainless steel bar industry as a percentage of sales increased from 6.4 percent in 1990 to 8.7 percent in 1991 and were higher in interim period 1993 (8.0 percent) than in interim period 1992 (7.8 percent).<sup>65</sup>

The domestic industry's capital expenditures declined 17.1 percent from 1990 to 1991 and another 43.8 percent from 1991 to 1992.<sup>67</sup> Capital expenditures for interim period 1993 were 39.1 percent lower than in interim period 1992.

Research and development expenses of U.S. producers of stainless steel bar on their stainless steel bar products decreased from \$5.2 million in 1990 to \$5.1 million in 1992 and were lower in interim period 1993 (\$3.8 million) than in interim period 1992 (\$3.9 million).<sup>66</sup>

## V: CUMULATION

In determining whether there is a reasonable indication of material injury by reason of LTFV imports, the Commission is required to "cumulatively assess the volume and effect of

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<sup>61</sup> Data referred to in this paragraph are summarized in Table 9, CR at I-51, PR at I-30; Table C-1, CR at C-3, PR at C-3.

<sup>62</sup> *Id.*

<sup>63</sup> See Table 9, CR at I-52, PR at II-30; Table C-1, CR at C-3, PR at C-3.

<sup>64</sup> Data referred to in this paragraph are summarized in Table 9, CR at I-51, PR at II-30; Table C-1, CR at C-4, PR at C-4.

<sup>65</sup> Data referred to in this paragraph are summarized in Table 9, CR at I-52, PR at II-30.

<sup>66</sup> We note that some U.S. producers reported above-line extraordinary charges that lowered operating income. Even after removing the effect of these one-time charges, however, the domestic industry still experienced losses. Table 9, CR at I-52, PR at II-30.

<sup>67</sup> Data referred to in this paragraph are summarized in Table 12, CR at I-60, PR at II-37; Table C-1, CR at C-4, PR at C-4.

<sup>68</sup> Table 13, CR at I-60, PR at II-37.

<sup>69</sup> Based on the low capacity utilization rates and significant declines in profitability and operating income over the period of investigation, Chairman Newquist and Commissioner Rohr find a reasonable indication that the industry is experiencing material injury.

imports from two or more countries of like products subject to investigation if such imports compete with each other and with like products of the domestic industry in the United States market."<sup>70</sup> Cumulation is not required, however, when imports from a subject country are negligible and have no discernible adverse impact on the domestic industry.<sup>71</sup> We first examine whether any of the subject imports are negligible, then discuss whether non-negligible subject imports should be cumulated.<sup>72</sup>

#### A. Negligibility

Section 771(7)(C)(v) of the Act provides that we are not required to cumulate those imports of the merchandise subject to investigation if they "are negligible and have no discernible adverse impact on the domestic industry."<sup>73</sup> In determining whether imports are negligible, the statute directs us to consider all relevant economic factors including, but not limited to, whether:

- (I) the volume and market share of the imports are negligible,
- (II) sales transactions involving the imports are isolated and sporadic, and
- (III) the domestic market for the like product is price sensitive by reason of the nature of the product, so that a small quantity of imports can result in price suppression or depression.<sup>74</sup>

Petitioners argue that the negligibility exception to the cumulation requirement clearly does not apply to any of the subject countries because the import penetration levels from all of the subject countries have been substantial throughout the period of investigation.<sup>75</sup> The Brazilian, Spanish, and Italian respondents each argue that their hot-rolled stainless bar imports should not be cumulated because they are negligible and have no adverse impact on the domestic producers; however, they make these arguments only in the context of a domestic industry defined as including only producers of hot-rolled stainless steel bar.<sup>76</sup> The Indian respondents similarly argue that their imports (presumably hot-rolled and cold-finished) should not be cumulated based on the negligibility exception to cumulation.<sup>77</sup>

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<sup>70</sup> 19 U.S.C. § 1677(7)(C)(iv)(I); Chaparral Steel Co. v. United States, 901 F.2d 1097 (Fed. Cir. 1990).

<sup>71</sup> 19 U.S.C. § 1677(7)(C)(v).

<sup>72</sup> Commissioner Nuzum notes that she first considers whether cumulation of the subject imports is required before assessing whether the negligibility exception to the cumulation provision of the statute applies to imports from one or more subject countries.

<sup>73</sup> 19 U.S.C. § 1677(7)(C)(v).

<sup>74</sup> *Id.*

<sup>75</sup> Petitioners' postconference brief at 49.

<sup>76</sup> See Brazilian respondents' postconference brief at 3, 8-9; Spanish respondents' postconference brief at 4, 5, 7; Italian respondents' postconference brief at 2-3. These respondents do not raise negligibility arguments with respect to cold-finished stainless bar or a like product encompassing all stainless steel bar. The Japanese respondents do not claim that their imports are negligible (hot-rolled, cold-finished or single like product), but they argue that, in the context of a domestic industry producing only hot-rolled stainless steel bar, because the hot-rolled bar imports of every other country are negligible, Japanese hot-rolled bar imports should not be cumulated with the hot-rolled bar imports of any other subject country. See Japanese respondents' postconference brief at 10. Consequently they then argue that their product is not a cause of material injury to the domestic industry because Japanese imports were declining and had no noticeable price or volume effects on the domestic industry. *Id.* at 10-13.

<sup>77</sup> Grand Foundry et al. Respondents' postconference brief at 16-18 (invoking the new standard of The Agreement on Implementation of Article VI of GATT 1994).

Based on our analysis of the record evidence, we determine that imports of stainless steel bar from all subject countries are not negligible. The market share and absolute volumes and values of imports from these countries in a market for a single like product were not insignificant.<sup>78</sup> The countries with the lowest market shares, India and Italy, witnessed market share peaks in the most recent reporting periods (i.e., above 1 percent in 1992 and above 2 percent in interim period 1993). Imports from all subject countries were not isolated and sporadic;<sup>80</sup> they entered the United States in every reporting period examined and were sold in similar marketing regions as the domestic product.<sup>81</sup>

Evidence on whether the domestic market for the like product may be price sensitive by reason of the nature of the product, so that a small quantity of imports might result in price suppression or depression,<sup>82</sup> is mixed. The record indicates that for several purchasers, price is a major consideration in a purchase, although most purchasers appear to have minimum expectations concerning quality and the end use physical characteristics they desire.<sup>83</sup>

In short, the record indicates that price appears to be an important consideration in purchasing decisions. We will, however, further explore this issue in any final investigations.

### B. Reasonable Overlap of Competition

To determine whether subject imports compete with each other and with the domestic like product, the Commission has generally considered four factors:

- (1) the degree of fungibility between the imports from different countries and the domestic like product, including consideration of specific customer requirements and other quality related questions;
- (2) the presence of sales or offers to sell in the same geographic markets of imports from different countries and the domestic like product;

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<sup>78</sup> See Table C-1, CR at C-3, PR at C-3. We note that these market share percentages include combined open and captive market consumption. If only open market consumption were considered, the market share would be greater.

<sup>79</sup> Commissioner Rohr and Commissioner Nuzum note that under current law the use of the market share as a measure of whether the volume of imports is negligible is a matter of Commission custom rather than statutory mandate. They believe that other measures could be looked at as well. For example, they note that imports for each of the countries under investigation are above the thresholds considered negligible under the recently negotiated GATT agreements based on a share of the imports test. "Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations," December 15, 1993, Agreement on Implementation of Article VI of GATT 1994, Article 5.8.

<sup>80</sup> See Table C-1, CR at C-3, PR at C-3.

<sup>81</sup> See CR at I-31 & n.45, I-34, I-36, PR at II-18 & n.45, II-20; Table 20, CR at I-78, PR at II-48; Table C-1, C-3, PR at C-3.

<sup>82</sup> 19 U.S.C. § 1677(7)(C)(V).

<sup>83</sup> Transcript at 78-83. We note that at least one importer stated that "the 303 grade from India is not well accepted, but has influenced the pricing." CR at I-84, PR at II-51. Another customer stated that Indian imports and to a lesser extent other imports from non-subject countries, "have led a downward trend in domestic and import prices during the past three years." CR at I-101, PR at II-59. There were also comments suggesting price effects by certain subject imports. CR at I-104, PR at II-60. In addition, one customer reported that prices for bar imports from one subject country were about 5 to 7 percent lower than domestic bar prices. CR at I-103, PR at II-59. Conversely, one customer that purchased Spanish, Japanese and U.S. stainless bar indicated that prices were about equal, and that it would not purchase Indian imports due to their inferior quality. CR at I-102, PR at II-59.

(3) the existence of common or similar channels of distribution for imports from different countries and the domestic like product; and

(4) whether the imports are simultaneously present in the market.<sup>84</sup>

Petitioners argue that each of these factors support cumulation of the imports from each of the subject countries.<sup>85</sup> Respondents from Brazil, Italy and Spain<sup>86</sup> claim that most of their hot-rolled stainless bar imports consist of hot-rolled stainless "true flat bar," which they claim has different physical characteristics and end uses than non-flat stainless steel bar sold by the domestic industry.<sup>87</sup> They argue that the domestic industry does not produce flat bar in large quantities, cannot produce the entire range of sizes and specifications, and generally lacks the capacity to satisfy domestic demand for the product.<sup>88</sup> The Brazilian respondents add that their flat bar imports are sold through different channels of distribution. Specifically, they contend that imports primarily are sold through mill depots and independent service centers. Domestic products, by contrast, are sold for captive consumption primarily and only minimally to service centers. They argue further that Brazilian products do not compete for the same customers as with U.S. products.<sup>89</sup> They also argue that their products do not compete on price with the domestic products.<sup>90</sup>

The Japanese respondents addressed separately whether their imports of hot-rolled and cold-finished bar should be cumulated in the context of the two like products, respectively, but did not address cumulation in the context of a single like product.<sup>91</sup> Like the respondents from Brazil, Italy, and Spain, the Japanese respondents allege that most of their imports of

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<sup>84</sup> See Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea and Taiwan, Inv. Nos. 731-TA-278-280 (Final), USITC Pub. 1845 (May 1988), aff'd, Fundicao Tupy S.A. v. United States, 678 F. Supp. 898 (Ct. Int'l Trade), aff'd, 859 F.2d 915 (Fed. Cir. 1988). Only a "reasonable overlap" of competition is required. See Wieland Werke, AG v. United States, 718 F. Supp. 50, 52 (Ct. Int'l Trade 1989); Granges Metallverken AB v. United States, 716 F. Supp. 17, 21-22 (Ct. Int'l Trade 1989); Florex v. United States, 705 F. Supp. 582, 592 (Ct. Int'l Trade 1989).

<sup>85</sup> Petitioners' postconference brief at 20, 44-49.

<sup>86</sup> Respondents from Brazil, Italy, and Spain did not provide arguments for not cumulating their imports in the context of a single like product. These respondents' arguments address only whether imports of hot-rolled stainless steel bar should be cumulated with domestic hot-rolled stainless bar in the context of a finding of two like products. Brazilian respondents' postconference brief at 3-8; Italian respondents' postconference brief at 2-3; Spanish respondents' postconference brief at 5-7. We note, however, that the Brazilian respondents argued that their imports of cold-finished bar should not be cumulated in the Commission's threat analysis. The Brazilian, Italian, and Spanish respondents also did not directly address whether the Commission should cumulate their imports of cold-finished stainless steel bar with imports from other subject countries. The Spanish respondents add that their hot-rolled bar imports were declining and isolated and sporadic. Spanish respondents' postconference brief at 7.

<sup>87</sup> Brazilian respondents' postconference brief at 3-11; Italian respondents' postconference brief at 2-5; Japanese respondents' postconference brief at 6-8; Spanish respondents' postconference brief at 5-7. The Italian respondents allege that there is limited price competition from their imports because their flat bars are niche products that generally do not compete closely with domestic products on price. Italian respondents' postconference brief at 5-7.

<sup>88</sup> Brazilian respondents' postconference brief at 9-11; Italian respondents' postconference brief at 3-5; see also Japanese respondents' postconference brief at 6-8.

<sup>89</sup> Brazilian respondents' postconference brief at 12-13, 17.

<sup>90</sup> Id. at 13-14. In the context of threat, the Brazilian respondents also oppose cumulation of their imports (hot-rolled and cold-finished) because they have consistently stable low market shares and other import trends were not uniform. Id. at 24-25.

<sup>91</sup> Japanese respondents' postconference brief at 3-10.

hot-rolled bar are of "true flat bar," which is not fungible with domestic stainless bar.<sup>92</sup> The Japanese respondents also argue that they do not compete with the domestic stainless bar on price.<sup>93</sup> The Japanese respondents argue that their cold-finished bar imports do not compete with the domestic product because they are specialized products with tighter tolerances sold at higher prices in high end market niches,<sup>94</sup> and are sold through different channels of distribution.<sup>95</sup>

The Indian respondents were the only foreign producers to provide arguments in the context of "all" stainless steel bar.<sup>96</sup> They argued that their products should not be cumulated with other countries because they produce an inferior quality product that does not compete with other imports or the domestic products.<sup>97</sup>

The Commission does have the authority to consider quality differences among products in determining whether or not to cumulate.<sup>98</sup> They are, however, only one factor among those the Commission considers.<sup>100</sup> In order to justify inapplicability of the mandatory cumulation provision, differences in quality or market niche served must be so pronounced as to outweigh other evidence suggesting that the goods, in fact, compete with each other.<sup>101</sup>

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<sup>92</sup> *Id.* at 6-7 (arguing that such imports have different physical characteristics (shapes), end uses, and customer and producer perceptions). They argue that flat bar is used for structural and stamping applications, while domestic hot-rolled bar is used for further processing into cold-finished bar or for machining and forging applications).

<sup>93</sup> *Id.* at 9-10.

<sup>94</sup> *Id.* at 14 (noting the specialization in "pump shaft quality bar," "boat shaft quality bar," and "bright hexagonal and square bars").

<sup>95</sup> *Id.* at 19-20 (noting that their imports are sold primarily through mill depots, as opposed to sales to end users, service centers, and related distributors as with domestic products).

<sup>96</sup> Grand Foundry et al. Respondents' postconference brief at 7-14.

<sup>97</sup> *Id.*

<sup>98</sup> See *Torrington Co. v. United States*, 790 F. Supp. 1161 (Ct. Int'l Trade 1992) (supporting Acting Chairman Brunsdale's decision not to cumulate Chinese ball bearings due, *inter alia*, to quality differences).

<sup>99</sup> Chairman Newquist notes that, in his view, once a like product determination is made, that determination establishes an inherent level of fungibility within that like product. Only in exceptional circumstances could Chairman Newquist find products to be "like" and then turn around and find that, for purposes of cumulation, there is no "reasonable overlap of competition" based on some roving standard of substitutability. See Additional and Dissenting Views of Chairman Newquist in *Flat-Rolled Steel Products*, USITC Pub. No. 2664 (Aug. 1993). Accordingly, Chairman Newquist does not join any of the discussion concerning alleged quality differences or "level of fungibility" between the subject imports and the domestic like product.

<sup>100</sup> Thus, the Commission has often found perceived quality differences to be less important than other factors in determining whether a reasonable overlap of competition exists. See, e.g., *Polyethylene Terephthalate Film, Sheet, and Strip from Japan and the Republic of Korea*, Inv. Nos. 731-TA-358-59 (Final), USITC Pub. 2383 at 26 (May 1991) (stressing sales in the same market segments despite asserted quality differences); *Industrial Nitrocellulose from Brazil, Japan, the People's Republic of China, the Republic of Korea, the United Kingdom, and West Germany*, Inv. Nos. 731-TA-439-444, USITC Pub. 2295 at 12-13 (June 1990) (Commission cumulated due, *inter alia*, to sales in similar geographic market despite alleged quality differences); *accord Fundicao Tupy S.A. v. United States*, 678 F. Supp. 898, 902 (Ct. Int'l Trade 1988) (relying on various factors to find support for the Commission's determination of competition for purposes of cumulation), *aff'd*, 859 F.2d 915 (Fed. Cir. 1988); *Marsuda-Rodgers International v. United States*, Fed. Cir. No. 90-1298-1316 (Nov. 29, 1990) ("there are many . . . factors which can support a finding of competition"), *rev'ing*, 719 F. Supp. 1092 (Ct. Int'l Trade 1989) (not reported in F.2d).

<sup>101</sup> See, e.g., *Certain Flat-Rolled Carbon Steel Products* at 36 (cumulating French imports where evidence showed "niche" product in fact competed with domestic product and at least one other exporter); *High-Tenacity Rayon Filament Yarn from Germany and the Netherlands*, Inv. Nos. 731-TA-530-531 (Preliminary), USITC Pub. 2444 at 14 (Oct. 1991) (while domestic product could not meet specifications for high end uses served by imports, they were substitutable in most applications);

(continued...)

The significance, however, of quality differences in determining whether there is a reasonable overlap of competition among imports and with domestic products is unclear in these preliminary investigations.<sup>102</sup> Generally all stainless steel bar must meet minimum ASTM A484 specifications to qualify for most end use applications.<sup>103</sup>

In these investigations, we find that the record at this point demonstrates a reasonable overlap of competition among the subject imports and between those imports and the domestic like product. At the very least, we cannot say that no likelihood exists that no evidence supporting cumulation will turn up in any final investigations. While there is some support for respondents' claim that quality differences exist, we find the information on record unpersuasive that any such quality differences demonstrate a lack of reasonable overlap of competition.<sup>104</sup> Most producers appear to sell in standard grades, principally ASTM 303, 304, and 316.<sup>105</sup> Although there were some perceived differences in quality, which would suggest lower substitutability, imports were perceived generally as interchangeable.<sup>106 107</sup>

With the exception of one domestic producer, domestic stainless steel bar is sold nationwide.<sup>108</sup> Moreover, imports from the subject countries are made through numerous

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<sup>101</sup> (...continued)

Polyethylene Terephthalate Film, Sheet, and Strip from Japan and the Republic of Korea, Inv. Nos. 731-TA-458-59 (Final), USITC Pub. 2383 at 24-26 (May 1991) (finding reasonable overlap despite multiple subproducts and markets).

<sup>102</sup> See CR at I-100, I-103, PR at II-57-60.

<sup>103</sup> CR at I-13-14, PR at II-9; Respondents' joint postconference brief at Exhibit 3, at 4-7; transcript at 268-269; accord Steel Wire Rope from the Republic of Korea and Mexico, Inv. Nos. 731-TA-546-547 (Final), USITC Pub. 2613, at 22, 30 (Mar. 1993) (reducing quality as a factor due to minimum industry standards that all steel wire was required to meet).

<sup>104</sup> CR at I-84-85, I-99-104, PR at II-57-60. The reject orders that the Indian respondents provided with their brief as representative of the inferiority of their products during the period of investigation may not support their claims. Their rejected products comprise only a small percentage of their total stainless steel bar shipped over the period of investigation (i.e., a low rejection rate). See Grand Foundry et al. Respondents' postconference brief Exhibit 2; Table 20, CR at 78, PR at II-48; Table C-1, CR at C-3, PR at C-3 (providing Indian imports reported on questionnaire responses). Moreover, the sample customer complaints involve many foreign purchasers, not U.S. purchasers. Grand Foundry et al. Respondents' postconference brief Exhibit 2. In any final investigations, we will seek more information on the purported inferior quality of the Indian product as it relates to its sales in the United States. CR at I-101, I-103-104, PR at II-57-60 (some comments showed that Brazilian and Indian products are average to slightly below average quality or equal in quality to U.S.-produced products).

<sup>105</sup> Grand Foundry et al. Respondents' postconference brief at 7; transcript at 206-207, 235-237.

<sup>106</sup> CR at I-84-85, I-99-104, PR at II-51, II-57-60.

<sup>107</sup> Vice Chairman Watson, Commissioner Rohr, and Commissioner Nuzum note product niche arguments are relevant to whether there is a reasonable overlap of competition. In order, however, for these arguments to overcome a reasonable overlap of competition standard: 1) the product niche must be specifically defined and the evidence must show there is no domestic or foreign competition within the niche; and 2) the products within such niches must account for substantially all of a country's imports. Even if some products fall within discrete niches, if the remaining products accounting for a substantial portion of the imports compete with other countries' products and the products of the domestic industry, they will view such evidence as constituting a sufficient overlap of competition for purposes of cumulation.

<sup>108</sup> CR at I-31 & n.45, PR at II-18 & n.45. Respondents' economic consultant testified at the conference that 20 percent of subject imports of stainless steel bar are concentrated in the Western United States. Transcript at 156, 228, 254; see also respondents' joint postconference brief at 40. We note that although imports may enter on the West Coast, this does not mean that sales are concentrated there or that they do not compete in other regions of the U.S. market. Indeed, despite comments on this issue by respondents' economic consultant in these investigations, there was no indication of which subject country's imports enter in this region and the extent to which these imports are concentrated in the Western United States.

importers that do not appear to be geographically concentrated in any particular region.<sup>109</sup> Thus, an overlap of the geographical markets exists among all subject imports and between subject imports and the domestic products.

Although there is evidence to suggest that some stainless steel bar products imported from Brazil, India, Italy, Japan, and Spain are sold through channels of distribution that may differ from the distribution channels of the domestic product, on balance, the evidence the Commission has gathered in these preliminary investigations shows that the channels of distribution overlap. Indeed, 76 percent of U.S. producers' shipments of stainless steel bar are sold through distributors while 98 percent of subject imports of stainless steel bar were sold through distributors.<sup>110</sup>

Although subject hot-rolled stainless steel bar imports were quite low for both India in 1990, and for Italy in 1990 and interim 1992,<sup>111</sup> imports of all stainless steel bar from all subject sources, including these two countries, were simultaneously present in the market throughout the period of investigation.<sup>112</sup> Stainless steel bar imports from all countries entered the United States each year during the period of investigation,<sup>113</sup> and all domestic producers reported sales in each year during the period of investigation (except Electralloy for 1990).<sup>114</sup>

Based on this evidence, we find that all subject imports compete with each other and with the domestic like product.<sup>115</sup> Although the "degree of fungibility" among the various subject imports and with the domestic stainless steel bar is difficult to assess fully in these preliminary investigations, on balance, we believe that the products are sufficiently fungible in light of the other factors considered. Based on the information available in these preliminary investigations, we find that a reasonable overlap in competition exists among the subject imports and between the subject imports and the domestic products.<sup>116</sup> Consequently we cumulate the effect of imports of stainless steel bar from all subject countries in determining whether there is a reasonable indication of material injury by reason of alleged LTFV imports.

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<sup>109</sup> CR at I-34, PR at II-19 (citing conference transcript at 74).

<sup>110</sup> CR at I-36, PR at II-20. We will explore further in any final investigations the importance of captive domestic consumption and the role of mill depots as an intermediary in the distribution channel. CR at I-36, PR at II-20; see also transcript at 117, 118, 126-127, 149-150, 227-228; respondents' joint postconference brief Exhibit 17. We note that the Japanese respondents admit that among their cold-finished bar imports a substantial amount actually compete directly with domestic products. Japanese respondents' postconference brief at 20.

<sup>111</sup> See Table C-2, CR at C-5, PR at C-5.

<sup>112</sup> Table 21, CR at I-80, PR at II-50; Table C-1, CR at C-3, PR at C-3.

<sup>113</sup> Tables 21 and C-1 indicate the relevant market shares and presence during the period of investigation.

<sup>114</sup> Table 10, CR at I-54, PR at II-32.

<sup>115</sup> Commissioner Brunsdale and Commissioner Crawford note that in Stainless Steel Wire Rod from India, USITC Pub. 2704 at I-22-24, they discussed at great length the statutory requirement that cumulation of the volume and effects of imports subject to two investigations be predicated on substantial evidence that the imports themselves compete with one another. There are five countries subject to investigation here – and that means ten pairs of comparisons of competition between imports alone. In a preliminary, the absence of evidence may justify cumulation under American Lamb. In a final, it most certainly does not. They therefore urge the parties to focus on the evidence that the imports compete with one another.

<sup>116</sup> In any final investigations, we will seek additional information on the extent to which imports compete with each other, particularly with respect to imports on the low quality end (Indian and Brazilian) and imports on the high quality end (Japanese and Italian). Moreover, to the extent that respondents continue to argue that their stainless steel bar comprises "niche" products, we will seek to identify whether they exclusively supply such products, and how no other products are interchangeable with their products. Conversely, we will seek information from the domestic producers that will indicate whether they produce any competitive products.

In any final investigations, we intend to explore more fully the extent to which subject imports compete with each other and the domestic products. We note that although respondents proffer various arguments to show that imports do not generally compete with the domestic industry, they do so almost exclusively in the context of only hot-rolled stainless bar. Respondents also provide limited discussion on the absence of competition among the subject imports (hot-rolled, cold-rolled, or among all subject stainless steel bar), which the Commission has consistently considered an important factor when analyzing whether to cumulate imports from different countries under investigation. In addition, in any final investigations, our consideration of competition among subject imports and between subject imports and domestic products will depend on the like product and domestic industry we define.

## VI. REASONABLE INDICATION OF MATERIAL INJURY BY REASON OF ALLEGEDLY LTFV IMPORTS

In making a preliminary determination in an antidumping investigation, the Commission is to determine whether there is a reasonable indication that an industry in the United States is materially injured "by reason of" the imports under investigation.<sup>117</sup> The Commission must consider the volume of imports, their effect on prices for the like product, and their impact on domestic producers of the like product.<sup>118</sup> Although the Commission may consider causes of injury other than the allegedly LTFV imports, it is not to weigh causes.<sup>119 120 121</sup> For the

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<sup>117</sup> 19 U.S.C. § 1673b(a).

<sup>118</sup> 19 U.S.C. § 1677(7)(B)(i).

<sup>119</sup> See, e.g., Citrosuco Paulista, S.A. v. United States, 704 F.Supp. 1075, 1101 (Ct. Int'l Trade 1988).

Chairman Newquist, Commissioner Rohr and Commissioner Nuzum further note 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, 74 (1979). Rather, a finding that imports are a cause of material injury is sufficient. See, e.g., Metallwerken Nederland B.V. v. United States, 728 F. Supp. 730, 741 (Ct. Int'l Trade 1989); Citrosuco Paulista, 704 F. Supp. at 1101.

<sup>120</sup> Vice Chairman Watson notes that the courts have interpreted the statutory requirement that the Commission consider whether there is material injury "by reason of" the subject imports in a number of different ways. Compare United States Engineering and Forging v. United States, 779 F. Supp. 1375, 1391 (Ct. Int'l Trade 1991) ("[I]t must determine whether unfairly-traded imports are contributing to such injury to the domestic industry. . . . Such imports, therefore, need not be the only cause of harm to the domestic industry") (citations omitted) with Metallwerken Nederland B.V. v. United States, 728 F.Supp. at 741 (affirming a determination by two Commissioners that "the imports were a cause of material injury") and USX Corp. v. United States, 682 F. Supp. 60, 67 (Ct. Int'l Trade 1988) ("any causation analysis must have at its core the issue of whether the imports at issue cause, in a non *de minimis* manner, the material injury to the industry"). Accordingly, Vice Chairman Watson has determined to adhere to the standard articulated by Congress, in the legislative history of the pertinent provisions, which states that "the Commission must satisfy itself that, in light of all the information presented, there is a sufficient causal link between the less-than-fair-value imports and the requisite injury." S. Rep. No. 249 at 75.

<sup>121</sup> Commissioners Brunsdale and Crawford note that the statute requires that the Commission determine whether a domestic industry is "materially injured by reason of" the allegedly LTFV imports. They find that the clear meaning of the statute is to require a determination on whether the domestic industry is materially injured by reason of LTFV imports, not by reason of LTFV imports among other things. 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 less-than-fair-value imports." S. Rep. No. 249 at 74. The legislative history, however, makes it clear that the Commission is not to weigh or rank the factors that are independently causing material injury. *Id.*; H.R. Rep. No. 317, 96th

(continued...)

reasons discussed below, we find that there is a reasonable indication that the domestic stainless steel bar industry is materially injured by reason of allegedly LTFV imports of stainless steel bar from the subject countries.

The volume and market share of subject imports were substantial, especially during 1991 and 1992 and in interim 1993. The subject imports increased 34.8 percent by quantity and 11.7 percent by value from 1990 to 1992.<sup>122</sup> Subject imports were higher (42.8 percent by quantity and 35.1 percent by value) in interim period 1993 compared with interim period 1992.<sup>123</sup> The market share of subject imports increased from 13.4 percent in 1990 to 16.0 percent in 1992.<sup>124</sup> Thus, we find the volume of the subject imports and their market share to be significant in these preliminary investigations.<sup>125</sup>

The Commission received pricing data from U.S. producers and importers from each of the subject countries, covering a range of representative hot-rolled and cold-finished stainless steel bar products.<sup>126</sup> Such data may not be representative of the products sold in a market, such as this one, in which there is considerable product differentiation and not all countries reported sales of all products during the period of investigation. We intend to obtain more comprehensive pricing data in any final investigations for a more significant portion of the subject imports, especially with respect to imports of hot-rolled products.<sup>127</sup> In these preliminary investigations, we have taken into account that pricing information is not as broad as we would prefer.

U.S. producer prices declined by 3 to 24 percent during January 1990-September 1993.<sup>128</sup> Subject import prices also generally declined and by a greater percentage than U.S. producer prices during the period for which data were collected.<sup>129</sup> The information shows that underselling was relatively widespread (i.e., in 140 out of 190 comparisons), although in particular sales comparisons, there were mixed instances of underselling and overselling. On a product-by-product basis, there was more overselling by imported hot-rolled stainless steel bar.<sup>130</sup> Prices of all products, however, tended to decline over the period of investigation and prices of subject imports declined more than prices of domestic products.<sup>131</sup>

In view of the underselling and price declines that we have found and the substitutability of the subject imports and the domestic product, we find in these preliminary determinations sufficient information to indicate that the subject imports depressed domestic prices to a significant degree.<sup>132</sup>

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<sup>121</sup> (...continued)

Cong., 1st Sess. 46-47 (1979). The Commission is not to determine if the allegedly LTFV imports are "the principal, a substantial or a significant cause of material injury." S. Rep. No. 249 at 74. Rather, it is to determine whether any injury "by reason of" the alleged LTFV 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 added).

<sup>122</sup> See Table 20, CR at I-78, PR at II-48, Table C-1, CR at C-3, PR at C-3.

<sup>123</sup> *Id.*

<sup>124</sup> Table 21, CR at I-80, PR at II-50; Table C-1, CR at C-3, PR at C-3.

<sup>125</sup> See Table 20, CR at I-78, PR at II-48, Table C-1, CR at C-3, PR at C-3, Table 21, CR at I-80, PR at II-50.

<sup>126</sup> See Transcript of Commission Meeting, February 9, 1994.

<sup>127</sup> See 19 U.S.C. § 1673b(a); *American Lamb*, 785 F.2d at 1003.

<sup>128</sup> Tables 23-28, CR at I-88-93, PR at II-53-57; Figures 1-3, CR at I-94-96, PR at II-57.

<sup>129</sup> *Id.*

<sup>130</sup> *Id.*

<sup>131</sup> *Id.*

<sup>132</sup> Commissioner Brunsdale and Commissioner Crawford rarely give much weight to evidence of underselling since it usually reflects some combination of differences in quality, other nonprice factors, or fluctuations in the market during the period in which price comparisons were sought.

There is a reasonable indication that the subject imports adversely affected the domestic industry, particularly as revealed through the industry's declining performance. We note in particular the domestic industry's consistent loss of market share during the period of investigation as compared to the increase in market share held by the subject imports, and the industry's operating losses toward the end of the period of investigation, notwithstanding the significant increases in the volume of domestic shipments.<sup>133</sup> Moreover, of the 42 allegations of lost sales or revenues, the Commission investigated 25 and was able to confirm 30 percent of them (by quantity and value).<sup>134 135 136 137 138</sup>

## CONCLUSION

The record in these preliminary investigations – particularly the significant volume and increasing market share of the subject imports, and the adverse price and volume effects of the subject imports, in light of the domestic industry's declining performance during the period of investigation – establishes a reasonable indication that the domestic industry producing stainless steel bar is materially injured by reason of the allegedly LTFV imports from the subject countries.

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<sup>133</sup> See Table 21, CR at I-80, PR at II-50, Table C-1, CR at C-3, PR at C-3 (domestic and import market share); Table 9, CR at I-51, PR at II-30 (domestic industry financial operations); Table 5, CR I-42, PR at II-24, Table C-1, CR at C-4, PR at C-4 (domestic shipments).

<sup>134</sup> CR at I-99-104, PR at II-57-60; Transcript of Commission Meeting, Feb. 9, 1994. Eight percent of the lost sales and revenues were denied. *Id.*

<sup>135</sup> Respondents argued that the costs of the alloying metals used in the production of stainless steel bar dictate the price of domestic stainless steel bar. The record, however, shows that alloy costs do not fully explain the declining performance of the domestic industry during the period of investigation. CR at I-50-60, PR at II-27-38. We plan to investigate more fully the impact of alloy costs in the market in any final investigations, however.

<sup>136</sup> Commissioner Brunsdale and Commissioner Crawford do not join this paragraph. Instead, they note that the subject imports hold a 13-15 percent cumulated market share. Since the alleged dumping margins range between 2.35 and 151.99 percent, there is a reasonable indication that "fairly" priced imports would lose a good deal of the market to U.S. stainless steel bar, even though the substitutability of the set of subject imports with the set of domestic like products is probably not high. They are careful to note their skepticism that the record in any final investigations will support a finding of one like product, and consequently that the market share held by the subject imports would be even as high as it is in these preliminary investigations.

<sup>137</sup> Since we have reached preliminary affirmative present material injury determinations in these investigations, we therefore have not reached the issue of threat and the question of the potential for product shifting. In the event that we may need to address threat in any final investigation, we will seek specific information concerning the capability of foreign producers in subject countries to shift their production from cold-finished stainless steel bar to hot-rolled bar.

<sup>138</sup> Vice Chairman Watson and Commissioner Rohr note that the Variance Analysis provided by Commission staff indicates that the declining operating income of the domestic producers during the period of investigation was primarily due to low and declining domestic prices and rising costs of production. There exists a reasonable indication that the generally lower priced subject imports played a part in suppressing domestic price increases that might have been sufficient to cover those rising costs. See INV-R-020.



**PART II: INFORMATION OBTAINED IN THE INVESTIGATIONS**



## INTRODUCTION

On December 30, 1993, a petition was filed with the U.S. International Trade Commission (Commission) and the U.S. Department of Commerce (Commerce) by counsel for Al Tech Specialty Steel Corp., Dunkirk, NY; Carpenter Technology Corp., Reading, PA; Republic Engineered Steels, Inc., Massillon, OH; Slater Steels Corp., Fort Wayne, IN; Talley Metals Technology, Inc., Hartsville, SC; and the United Steelworkers of America, AFL-CIO/CLC.<sup>1</sup> The petition alleges that imports of stainless steel bar from Brazil, India, Italy, Japan, and Spain are being sold in the United States at less than fair value (LTFV) and that an industry in the United States is being materially injured and is threatened with further material injury by reason of such imports.<sup>2</sup>

Accordingly, effective December 30, 1993, the Commission instituted preliminary antidumping investigations under section 733 of the Tariff Act of 1930 (the Act) to determine whether there is a reasonable indication that an industry in the United States is materially injured or 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.

The statute directs the Commission to make its preliminary determinations within 45 days after receipt of the petition or, in these investigations, by February 14, 1994. Notice of the institution of these investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of January 7, 1994.<sup>3</sup> Commerce published its notice of initiation in the *Federal Register* of January 27, 1994.<sup>4</sup> The Commission held a public conference in Washington, DC, on January 20, 1994, at which time all interested parties were allowed to present information and data for consideration by the Commission.<sup>5</sup> The Commission voted on these investigations on February 9, 1994.

A summary of the data collected in these investigations is presented in appendix C.

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<sup>1</sup> On January 4, 1994 and January 7, 1994, Electralloy Corp., Oil City, PA, and Crucible Specialty Metals Division, Syracuse, NY, respectively, became co-petitioners in these investigations.

<sup>2</sup> The imported stainless steel bar covered by these investigations are articles of stainless steel in straight lengths that have been either hot-rolled, forged, turned, cold-drawn, cold-rolled, or otherwise cold-finished or ground, having a uniform solid cross section along their whole length in the shape of circles, segments of circles, ovals, rectangles (including squares), triangles, hexagons, octagons, or other convex polygons. Except as specified above, the term does not include stainless steel semifinished products, cut-to-length flat-rolled products (i.e., cut-to-length, rolled products that if less than 4.75 mm in thickness, have a width measuring at least 10 times the thickness, or if 4.75 mm or more in thickness, have a width exceeding 150 mm and measure at least twice the thickness), wire (i.e., cold-formed products in coils, of any uniform solid cross section along their whole length, which do not conform to the definition of flat-rolled products), and angles, shapes, or sections. Stainless steel bar includes cold-finished stainless steel bars that are turned or ground in straight lengths, whether produced from hot-rolled bar or from straightened and cut rod or wire, and reinforcing bars that have indentations, ribs, grooves, or other deformations produced during the rolling process.

<sup>3</sup> 59 F.R. 1027.

<sup>4</sup> 59 F.R. 3844. Copies of the Commission's and Commerce's *Federal Register* notices are presented in appendix A.

<sup>5</sup> A list of the participants in the conference is presented in appendix B.

## PREVIOUS AND RELATED INVESTIGATIONS

Stainless steel bar, often combined with other stainless and alloy steel products, has been the subject of numerous Commission investigations, along with investigations by other U.S. government agencies, since the middle 1970s. Details on these investigations are provided in table 1.

### NATURE AND EXTENT OF THE ALLEGED SALES AT LTFV

In order to calculate the estimated dumping margins for stainless steel bar imported from Brazil, India, Italy, Japan, and Spain, petitioners compared the U.S. price of selected grades and sizes of stainless steel bar with their foreign market value. The following tabulation summarizes the estimated dumping margins for each of the foreign countries subject to these investigations (*in percent*):

<u>Country</u>	<u>Estimated dumping margins</u>	
	<u>Low</u>	<u>High</u>
Brazil . . . . .	20.36	20.36
India . . . . .	2.35	39.25
Italy . . . . .	22.81	151.99
Japan . . . . .	49.06	62.47
Spain . . . . .	38.82	127.79

#### Brazil

Through their own market research, petitioners obtained U.S. prices for grade 416 stainless steel bar delivered in the first quarter of 1993 by Acos Villares, S.A. (Villares), the largest Brazilian manufacturer. They based U.S. prices on such quotes, after adjusting for duty, ocean freight, marine insurance, and harbor maintenance and U.S. merchandise processing fees. Foreign market value was based on Villares' May and June 1993 home market prices for the identical grade of stainless steel bar, adjusted for freight expenses. Comparison of these two prices yielded a margin of 20.36 percent.

#### India

U.S. price was based on July 1993 price quotes obtained by petitioners through their market research or, alternatively, from the average unit values for stainless steel bar from India for August and September 1993, based on official U.S. import statistics.<sup>6</sup> Regarding the former methodology, petitioners adjusted the price quote for duty, ocean freight, marine insurance, and harbor maintenance and U.S. merchandise processing fees. Regarding the latter methodology, petitioners calculated a weighted average U.S. price using the Harmonized Tariff Schedule (HTS) numbers under which the subject merchandise enters the United States.

Foreign market value was based on home market prices from Mukand, Ltd. (Mukand), the largest Indian manufacturer. Petitioners adjusted these prices for taxes, insurance, freight, and distributor's margin. Petitioners also adjusted these prices for differences in the physical

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<sup>6</sup> Petitioners noted that official statistics for August and September were used in order to account for the delivery period that would ensue from a sale made in July.

Table 1  
Stainless steel bar: Previous and related investigations, 1976-94

Item	Agency	Investigation No.	Date of issue	Report No.	Result
Stainless steel and alloy tool steel	USITC	TA-201-5	1976	USITC 756	Affirmative <sup>1</sup>
Stainless steel round wire	USITC	TA-201-13	1976	USITC 779	Negative
Stainless steel and alloy tool steel	USITC	TA-203-3	1977	USITC 838	Affirmative <sup>2</sup>
Stainless steel round wire	USITC	AD-INQ-17	1978	USITC 907	Affirmative
Stainless steel and alloy tool steel	USITC	332-94	1978	USITC 875, etc.	Report(s) to Congress
Stainless steel and alloy tool steel	USITC	TA-203-5	1979	USITC 968	Affirmative <sup>3</sup>
Stainless steel and alloy tool steel	USTR	Sec. 301	1981-82	(*)	Sec. 201 investigation instituted <sup>4</sup>
Stainless steel bar: <sup>6</sup> Spain	USITC	701-TA-176-178 (P)	1982	USITC 1254	Affirmative
Stainless steel bar: <sup>6</sup> Brazil	USITC	701-TA-179-181 (P)	1982	USITC 1276	Affirmative
Stainless steel bar: <sup>6</sup> Spain	USITC	701-TA-176-178 (F)	1983	USITC 1333	Negative <sup>7</sup>
Stainless steel bar: <sup>6</sup> Brazil	USITC	701-TA-179-181 (F)	1983	USITC 1398	Affirmative
Stainless steel	USITC	TA-201-48	1983	USITC 1377	Affirmative <sup>8</sup>
Stainless steel and alloy tool steel	USTR	(*)	1984	(*)	VRAs negotiated <sup>9</sup>
Stainless steel and alloy tool steel	USITC	TA-203-16	1987	USITC 1975	Affirmative <sup>10</sup>
Stainless steel wire rod: Brazil, France, and India	USITC	731-TA-636-638 (P)	1993	USITC 2599	Affirmative
Stainless steel wire rod: India	USITC	731-TA-638 (F)	1993	USITC 2704	Affirmative
Stainless steel wire rod: Brazil France	USITC	731-TA-636-637 (F)	1994	USITC 2721	Affirmative

<sup>1</sup> President Ford established a 3-year import restraint program for these products effective June 14, 1976 (41 F.R. 24101).

<sup>2</sup> Quantitative limits were eliminated on chipper knife steel and band saw steel; limits on stainless steel bar were unaffected.

<sup>3</sup> Quantitative limits were extended; such limits were phased out effective Feb. 13, 1980.

<sup>4</sup> Not applicable.

<sup>5</sup> 47 F.R. 51717.

<sup>6</sup> Also included stainless steel wire rod.

<sup>7</sup> Affirmative regarding wire rod.

<sup>8</sup> President Reagan proclaimed import relief in the form of a 4-year quota program, expanding at an annual rate of 3 percent (48 F.R. 31177).

<sup>9</sup> The VRAs, entered into with the governments of Australia, Austria, Brazil, Czechoslovakia, the European Community, Finland, the German Democratic Republic, Hungary, Japan, Mexico, Poland, Portugal, the Republic of Korea, Romania, South Africa, Spain, Venezuela, and Yugoslavia, incorporated the quotas established under Inv. No. 201-TA-48. On July 25, 1989, President Bush extended these VRAs until Mar. 31, 1992.

<sup>10</sup> Quantitative limits were retained on stainless steel bar, but were eliminated for stainless steel flat products.

characteristics of the merchandise sold in the home market, as such merchandise was primarily "black" (that is, unfinished) bar in contrast to the finished bar sold to the United States. A comparison of U.S. price to foreign market value yielded margins ranging from 11.26 to 21.02 percent, when U.S. price was based on the quote, and from 2.35 to 39.25 percent, when based on official U.S. import statistics.

### Italy

Petitioners based U.S. price on their market research regarding Cogne, S.p.A. (Cogne), a major Italian manufacturer, for sales of grade 304 and 316/316L stainless steel round bars offered for sale in May 1993. These prices were adjusted for duty, ocean freight, marine insurance, and harbor maintenance and U.S. merchandise-processing fees. Because the petitioners believed that home market prices in Italy for the same merchandise were below full cost of production, they based foreign market value on constructed value, using the production costs of one of their member companies adjusted to reflect production costs in Italy.<sup>7</sup> They then added the statutory minimum for profit and an estimate of Italian packing costs. A comparison of these figures produced a margin of 151.99 percent; by contrast, a comparison of U.S. price with the allegedly below-cost home market price yielded a margin of 22.81 percent.

### Japan

U.S. price was based on petitioners' market intelligence reports regarding sales by Daido Steel, Ltd. (Daido), the largest Japanese manufacturer of stainless steel bar. Petitioners obtained price quotes for grades 303, 304, and 316 stainless steel bar. These prices were adjusted for duty, ocean freight, marine insurance, and harbor maintenance and U.S. merchandise processing fees. For foreign market value, petitioners used prices charged by Daido in Japan during May and June 1993, adjusted for inland freight, packaging, trade discounts, rebates and sales promotions, advertising, warranties, and credit expenses. Margins ranged from 49.06 to 62.47 percent.

### Spain

Petitioners constructed margin estimates based on a comparison of U.S. price with home market prices and, alternatively, on a comparison of U.S. price with constructed value because they had reason to believe that Spanish producers were selling stainless steel bar in the Spanish market at less than cost of production. U.S. price was based on a price quote for grade 304/304L 1- to 3-inch stainless steel round bars offered for sale by Acenor, a major Spanish manufacturer, during September 1993, adjusted for duty, ocean freight, marine insurance, and harbor maintenance and U.S. merchandise processing fees. Spanish constructed value was derived on the basis of one petitioning company's costs for grade 304 stainless steel bar, adjusted to account for alleged production cost differences in Spain, and including the statutory minimum for profit and an estimate of packing costs. The comparison of U.S. prices with Spanish home market prices produced a margin of 38.82 percent. By contrast, the comparison of U.S. prices with constructed value yielded a margin of 127.79 percent.

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<sup>7</sup> Italian costs were developed through market research.

## THE PRODUCT

### Description

For purposes of these investigations, stainless steel bars are articles of stainless steel<sup>8</sup> in straight lengths<sup>9</sup> having a uniform solid cross section along their whole length in the shape of circles, segments of circles, ovals, rectangles (including squares), triangles, hexagons, or other convex polygons.<sup>10</sup> Petitioners contend that these products constitute a single like product and Commerce identified them, pending review, as a single "class or kind of merchandise" in its notice of initiation

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<sup>8</sup> Stainless steels are distinguished from carbon and lower alloy steels chiefly by stainless steel's superior resistance to corrosion or oxidation at atmospheric or elevated temperatures. This superior corrosion resistance is primarily brought about by the addition of chromium to alloys of iron and carbon. Although other elements, such as copper, aluminum, silicon, nickel, and molybdenum also increase the corrosion resistance of steel, they are limited in their usefulness in the absence of chromium (see United States Steel, *The Making, Shaping, and Treating of Steel*, 1985, 10th ed., p. 1333). According to one industry publication, stainless steel possesses a minimum chromium content of 10 percent by weight, although most industry representatives and the international tariff nomenclature indicate a content of 10.5 percent (note 1(e) to chapter 72 of the HTS defines stainless steel as alloy steels containing, by weight, 10.5 percent or more of chromium and 1.2 percent or less of carbon, with or without other elements).

There are numerous grades of stainless steel with different chemistries (the relative amounts of nickel, chromium, molybdenum, copper, and other alloying agents vary, for example), physical and mechanical properties, and end uses. A specific grade is referred to by its 3-digit type number (or 5-digit code in the Unified Numbering System (UNS)), which generally indicates the alloy's chemistry. This type number is sometimes modified by a letter suffix to indicate chemical differences between the two grades. For example, type 316L differs from type 316 regarding its lower carbon content. These essential characteristics affect the manner in which the steel is melted, its ladle treatment, hot rolling, process annealing and heat treatment, and cold forming, as described below.

Stainless steels, including those that are made into bars, are generally subdivided into four groups in terms of their chemical composition and hardenability (their response to heat treatment). Hardening is a process of heating and rapidly cooling stainless steels to and from a temperature either within or above the critical temperature range, during which there is a change in the steel's grain structure. Hardening is generally followed by a tempering or stress-relieving treatment. The first group contains hardenable chromium steels within the 400 and 500 series of stainless steels (martensitic steel grain structure and possessing magnetic properties). The second group contains nonhardenable chromium steels within the 400 series of stainless steels (ferritic grain structure and magnetic). Products in this group can, however, be hardened by cold working (ISS, *Steel Products Manual*, p. 29). The other two groups possess nickel in addition to chromium. Group three contains nonhardenable chromium-nickel and chromium-nickel-manganese steels within the 200 and 300 series of stainless steels (austenitic grain structure and not magnetic). These types are essentially nonmagnetic in the annealed condition and do not harden by heat treatment, although cold working develops a wide range of mechanical properties. This group accounts for the bulk of industry shipments. The fourth group is that of precipitation hardenable stainless steels (martensitic and magnetic), which include the S13800, S15500, S17400, and S17700 series. These are iron-chromium-nickel alloys with additional elements that are hardenable by solution treating and aging.

<sup>9</sup> As distinguished from "rods," which are, by definition, coiled products.

<sup>10</sup> Including reinforcing bars that have indentations, ribs, grooves, or other deformations produced during the rolling process, but excluding products that have been cut from stainless steel sheets or plates ("flats"). Flats may also be produced on a bar mill, in which case they are included within the scope of the investigations. According to petitioners, the two types of hot-rolled flat bars are not interchangeable; consumers prefer the wider range of gauges, generally thicker bars, and superior edges of the flat bar produced on a bar mill over the flat bar produced from sheared sheet and plate (transcript, p. 65). One reason is that cutting or shearing plate to bar dimensions establishes stresses at the edge, making it weaker than the bar-mill product. The extent that these stress fractures in the hot-rolled product might be lessened or ameliorated through edge milling or grinding and stress relieving is unknown. On the other hand, a significant volume of flat bars have been produced from sheared sheet and plate because of availability limitations imposed by bar rolling schedules and the greater range of widths and gauges available in the flat-rolled product (telephone interviews with \*\*\*, Jan. 25, 1994 and \*\*\*, Jan. 26, 1994).

of the investigations. Respondents, however, contend that hot-rolled and cold-formed stainless steel bar should be considered separate like products, and, in previous Title VII investigations (see table 1), the Commission has found them to be separate like products. Accordingly, separate data were requested on hot-rolled and cold-formed bar in the questionnaires used for these investigations. As discussed at length in the staff conference and party briefs, however, there are disagreements on the definition of these products and some question as to the accuracy of information submitted. For purposes of the Commission's questionnaires, the two products were defined on the basis of descriptions in the HTS. HTS definitions, however, are not fully consistent with other commonly used definitions (such as those of the American Iron and Steel Institute (AISI)) and there is considerable uncertainty as to the specific point at which a hot-rolled bar becomes cold formed (i.e., as to which processing steps are considered to advance a hot-rolled bar to a cold-formed bar).

## Specifications

Stainless steel bars are produced to chemical composition limits, physical properties, and thermal treatments specified by the AISI, the American Society for Testing and Materials (ASTM), and, less commonly, by the Society of Automotive Engineers (SAE).<sup>11</sup> ASTM standards parallel AISI grade designations, as do designations under the Unified Numbering System (UNS) for chemical composition. In addition, there are U.S. government procurement standards (military specifications under MIL-S and MIL-F). Maximum percentages of certain elements are specified in AISI, ASTM, and UNS grades (carbon, manganese, phosphorus, sulphur, silicon, chromium, nickel, molybdenum, and, sometimes, cobalt, titanium, and copper, for example).<sup>12</sup> These designations apply to all shapes of stainless steel products, although an end user might modify an alloy's chemistry or specify different processing to achieve a specific performance.

ASTM reference standards specify test procedures, physical properties (including mechanical properties), grain size and shape (microstructure), surface quality, and tolerances (permitted size variations). Most other standards are subordinated to ASTM tolerances, and ASTM tolerances are used as a reference point in the majority of commercial transactions.<sup>13</sup> With respect to stainless steel bars, ASTM tolerance specifications for hot-rolled bars differ significantly from cold-formed bars (the permitted size variations of hot-rolled bars are several times larger than those permitted for cold-formed bars).

Surface finish affects tolerance, and industry specifications distinguish among types of surface finishes or treatments. For example, the permitted tolerances and required surface finish of the hot-rolled product generally assume that surface scale will be removed by spot conditioning, rough turning, or descaling processes. Hot-rolled bars may also be annealed, pickled, and straightened without achieving tolerances and finish specifications of cold-formed bars. The smaller size variations and smoother, more even, and higher luster surfaces of cold-formed bars are generally achieved through operations that cold draw, cold roll, centerless grind, or polish the stainless steel bar.<sup>14</sup>

With respect to tariff specifications, the nonbinding Harmonized System explanatory notes distinguish cold-worked bars from hot-rolled/hot-drawn bars by noting that cold-worked bars possess superior surface finishes, tighter dimensional tolerances, and a markedly different crystalline

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<sup>11</sup> The Iron and Steel Society has assumed responsibility for updating standards and publishing technical manuals, but stainless steel grades are commonly referred to by their AISI 3-digit type number.

<sup>12</sup> Chemical specifications for selected grades are provided in ISS, *Steel Products Manual: Stainless and Heat Resisting Steels*, pp. 17-20; types are annotated at pp. 27-193.

<sup>13</sup> Respondents' joint postconference brief, p. 6. Also see ISS, *Steel Products Manual*, p. 199; the discussion therein incorporates ASTM A484 specifications for permitted size variations.

<sup>14</sup> Telephone conversations with \*\*\*, Jan. 24, 1994 and \*\*\*, Jan. 25, 1994.

structure.<sup>15</sup> The notes indicate that while mechanical working (turning, milling, grinding, sizing, peeling) leads to a tariff classification change from hot rolled to cold formed, annealing, hardening, tempering, descaling, pickling, scraping, rough turning (and other processes to remove oxide scale), and rough coating intended to protect the product against oxidation do not.<sup>16</sup>

### Manufacturing Process

As described below, the manufacturing process for stainless steel bar consists of three different stages: (1) melting and casting into semifinished shapes, (2) hot rolling/hot forging, and (3) cold-forming.

#### Melting and Casting

Most of the stainless steels produced in the world are melted from scrap in an electric arc furnace (EAF). The scrap charge may consist of stainless steel scrap alone or may be combined with high grade carbon steel scrap; additions of alloying agents (including chromium, nickel, and molybdenum), fluorspar, and lime or limestone are made to the liquid steel to impart specific properties to finished steel products or to serve as a fluxing agent. The molten steel is poured or tapped from the furnace to a ladle, which is an open-topped, refractory-lined vessel that has an off-center opening in its bottom, equipped with a nozzle. Meanwhile, the primary steelmaking vessel or electric arc furnace (EAF) may be charged with new materials to begin another refining cycle.

Molten stainless steel is typically passed through a ladle metallurgy station, where its chemistry is refined to embody the steel with properties required for specific applications. At the ladle metallurgy, or secondary steelmaking station, the chemical content (particularly that of carbon and sulphur) is adjusted, and alloying agents may be added; the steel may be degassed (the elimination of oxygen and hydrogen) at low pressures; and the temperature of the steel is adjusted for optimum casting.<sup>17</sup> Stainless steelmakers use such processes as argon-oxygen decarburization (AOD) or vacuum oxygen decarburization (VOD).<sup>18</sup>

Once molten steel with the correct properties has been produced, it is cast into a semifinished form that can enter the rolling process. Some stainless steels are cast into ingots, but continuous casting of blooms and billets<sup>19</sup> is the preferred method for making semifinished shapes for the

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<sup>15</sup> Customs Cooperation Council, EN/AS 5-July 1989, ch. 72, p. 981.

<sup>16</sup> Ibid., Notes (C)(1) and (C)(2)(a), (b), and (c).

<sup>17</sup> Liquid steel absorbs gases from the atmosphere and from the materials used in the steelmaking process. These gases, chiefly oxygen and hydrogen, cause embrittlement, voids, and nonmetallic inclusions. Low pressure, such as in a vacuum, aids the release of oxygen in gas form without the need for additions of such "deoxidizers" as silicon, aluminum, or titanium that form nonmetallic inclusions. Additionally, carbon content may be reduced more easily at low pressure because it combines with oxygen to form carbon monoxide and is released in gas form, resulting in a more ductile steel. Hydrogen gas causes embrittlement, low ductility, and blow holes in steel; vacuum treatment enhances the removal of hydrogen from the steel. Hence the use of deoxidizing processes results in a more efficient process and a cleaner steel. United States Steel, *The Making, Shaping, and Treating of Steel*, 1985, 10th ed., pp. 671-676.

<sup>18</sup> In the AOD process, molten steel is transferred from the EAF to a separate vessel, as noted above. Oxygen, gradually replaced by argon, is blown through the molten steel to eliminate impurities. In the VOD process, the metal is heated and stirred by an induced electrical current at low pressure (or vacuum). Oxygen is introduced through a water-cooled lance.

<sup>19</sup> Billets are mostly square, semifinished steel shapes, of a solid cross section measuring mostly in the range 50 mm by 50 mm (2 inches by 2 inches) to 125 mm by 125 mm (5 inches by 5 inches). However, billets may exceed this measurement (one domestic stainless steelmaker produces a 7-inch square billet, for example). Blooms (another semifinished shape) are also mostly square, but larger than billets. Although billets were distinguished from blooms by size in the former Tariff Schedules of the United States, with the break between

(continued...)

industry producing bars.<sup>20</sup> Compared with ingot production, continuous casting results in energy savings and higher yields of raw steel to steel product.

In ingot casting, the ladle containing molten steel is moved by an overhead crane to a pouring platform where the molten steel is poured. As the steel begins to solidify, the mold is stripped from the ingot and the ingot is 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 roughing mill, forged, or pressed to intermediate size blooms and billets. The selection of rolling, forging, or extruding as the finishing method depends on several factors, including the composition of the steel and the intended product size.

In continuous strand casting, the ladle containing molten steel is transferred from the ladle metallurgy station to the caster, and the molten steel is poured at a controlled rate into a tundish, which in turn controls the rate of flow of the molten steel into the caster's mold. The strand caster is designed to produce billets in the desired cross-sectional dimensions, based on the dimensions of the bar and on the number of passes to be made during rolling. Billets may be charged directly into the rolling mill ("hot-charged"), or they may be subjected to one or several conditioning operations (heating or annealing, grinding, or turning, for example) that ready them for hot rolling.

### Hot-Rolling/Forging

Billets are usually channeled through a reheat furnace before rolling or hot forging to bar sizes. This increases the malleability of the steel and reduces wear and energy consumption on the rolling mill. Most modern rolling mills are in-line (or straight line), although cross-country mills are still in use. This discussion focuses on the in-line rolling mill. Exiting the reheat furnace, the billet is initially reduced in cross section by passing it through a series of rolls, termed roughing stands. It may be reheated to maintain optimum rolling temperature before being passed through several more stands (termed intermediate rolling) to be successively reduced in size, or passed further along the hot-rolling line to the finishing stands, to be further reduced in size, quenched with a water spray, and directed to a cooling bed. The rolls in each stand can be set to the desired configuration or shape of bar product, including flat, round, or convex polygon (hexagon, for example).<sup>21</sup>

The bar product that emerges from hot rolling at this point is termed "black bar" because of the heavy layer of oxide on its surface.<sup>22</sup> It is this product that petitioners define as "hot-rolled" bar. Respondents contend that hot-rolled bar includes also products that have been subjected to additional surface conditioning, such as spot conditioning, rough turning (where the bar is turned on a lathe and surface oxides, or mill scale, are scraped away with a cutting instrument), or another form of

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<sup>19</sup> (...continued)

them occurring at approximately 36 square inches (230 mm<sup>2</sup>), these distinctions were not carried over into the HTS. Industry officials, however, continue to use this terminology and the size distinctions are carried over in ASTM standards A484/A484 M for billets and forgings. Billets may be used to produce rods and bars, but are restricted to smaller bar sizes; blooms, which have a larger cross section, are used to produce larger size bars, forgings, angles, and structurals. This discussion will use the term billets to refer to the semifinished shapes used to produce bars.

<sup>20</sup> A significant volume of small-diameter round stainless steel hot-rolled bars are produced from rod (a coiled product typically supplied in hot-rolled, pickled, and annealed condition) by uncoiling the rod, straightening it, and cutting it to length (U.S. International Trade Commission, *Stainless Steel Wire Rod from India*, USITC Publication 2704, Nov. 1993, p. II-5).

<sup>21</sup> Some flat bars are produced by slitting or cutting de-coiled sheet and plate to the desired width. These are termed "c-flats" or, if processed through a machine that mills their edges, "Gauer" bars. Transcript, p. 176. These products are not within the scope of these investigations.

<sup>22</sup> Telephone conversation with \*\*\*, Jan. 12, 1994. Another industry expert, however, establishes "black bar" somewhat further along in the production process, as the hot-rolled product after its first annealing. Respondents' joint postconference brief, affidavit of \*\*\*.

mechanical descaling operation (shot-blasting, for example).<sup>23</sup> There are few commercial sales of black bar; using their definition, respondents estimate that shipments of hot-rolled bar account for approximately 15 to 20 percent of total shipments of stainless steel bar.<sup>24</sup>

After hot rolling, the bar, if required, undergoes annealing or another heat treatment, after which it may be subjected to spot conditioning, rough turning, or mechanical or chemical cleaning of surface oxides (shot-blasting and pickling, respectively).

The work force or shift engaged in hot-rolling operations in a U.S. steel mill is not usually the same as the one performing conditioning or subsequent processing, such as cold-forming. For example, labor contracts with the United Steel Workers union usually prevent worker crossover between departments, and different work schedules within hot-rolling, annealing and pickling, and cold-forming departments may prevent employee shifting as well. Because these operations tend to be spread out (a hot-rolling mill may measure several hundred yards in length) and because of the need to avoid contamination, these various operations may be located in separate buildings as well. Most of the domestic industry participants perform cold-forming operations in facilities that are separate from their hot-rolling operations.

### Cold-Forming<sup>25</sup>

Cold-formed bars are produced from hot-rolled bars by additional operations that give them a superior dimensional tolerance, improved surface finish, or mechanical properties that are absent from the hot-rolled product.<sup>26</sup> Cold-drawn or cold-rolled bars may be annealed or otherwise heat treated and descaled after cold working (which usually increases tensile strength and hardness), although these operations necessitate larger tolerance limits because of metal loss in heat treating and cleaning. If cold drawing is intended, the bar product is annealed, pickled, and coated with a metal such as copper, or lime, borax, phosphate, or a soap to neutralize any residual acid and to provide a lubricant in the drawing operation.

Cold-formed round bars are commonly machine straightened, followed by centerless grinding, or grinding and polishing; or they may be cold drawn or cold rolled.<sup>27</sup> As noted above, some round bars are produced from decoiled, straightened, and cut-to-length rod; these bars may be cold drawn or cold rolled and subjected to centerless grinding or polishing to achieve final tolerance. Centerless grinding or polishing does not essentially alter the bar's mechanical properties, and these

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<sup>23</sup> According to industry literature, bars of the 400 series stainless steels, which are highly hardenable by working, are annealed prior to rough turning. Although rough turning resembles grinding (a cold-forming process), only surface scale is removed but, unlike grinding, outside dimensions, or tolerance, is not affected; cold-formed tolerances under ASTM A484 cannot be achieved by rough turning. Respondents' joint postconference brief, affidavit of \*\*\*.

<sup>24</sup> Respondent's joint postconference brief.

<sup>25</sup> "Cold" refers to mechanical work on a product at ambient temperature, i.e., where it is not heated before the operation. This has given rise to much of the controversy over definitions used in the investigations; for instance, operations such as pickling, annealing, rough turning, and straightening are "cold," but may not yield a product meeting cold-formed bar specifications.

<sup>26</sup> ISS, *Steel Products Manual*, pp. 199-205.

<sup>27</sup> Centerless grinding does not require that the piece to be worked be mounted on centers, which are necessary for most grinding operations performed on a lathe. The work is supported on a rest between the grinding wheel and a regulating wheel that can be inclined to feed the work longitudinally at the desired rate. The peripheral speed of the regulating wheel is adjustable to impart uniform rotation and proper peripheral speed to the work. Use of centerless grinding results in less yield loss, higher production rates and less surface eccentricity; many cylindrical (including tapered) parts, such as automobile pistons and shafts, are finished using this process.

Cold rolling and cold drawing change the crystalline structure of the bar's steel and are considered cold-plastic deformation processes, as opposed to the hot-plastic deformation process of hot rolling, described earlier.

processes are utilized to enhance the bar's surface finish or tolerance. Because of their shape, cold-formed square, flat, hexagon, octagon, and special shape bars are produced from hot-rolled bars by cold drawing or cold rolling; they can also subsequently be subjected to centerless grinding or polishing.

According to questionnaire data, cold-forming may add as much as \*\*\* to the value of a hot-rolled bar, depending upon grade and the extent of "cold" work performed. Because of the significance of cold forming, there are approximately 15 nonintegrated companies (that is, firms that do not hot roll or do not possess steel-melting capability) in the United States that specialize in cold-formed bar production. These companies typically purchase stainless steel wire rod and/or hot-forged/hot-rolled stainless steel bars for their cold-forming operations.<sup>28</sup>

### Uses

Most stainless steel long products, including bar, are typically used in capital investment projects. Hence, the subject products are likely to be used for applications involving beverage, food, pharmaceutical, refinery, power plant (including jet engines and exhaust manifolds), and chemical process industry equipment. One primary consideration is the corrosion-resistance imparted by stainless steel. The companies that purchase stainless steel bar first identify the necessary mechanical properties (for example, ductility, strength, and hardness), corrosion resistance, and hardening capability and then select a grade of stainless steel that meets those criteria. Differences in end uses and specific applications dictate variations in chemistry.

The primary consumers of stainless steel hot-rolled bars are cold-formed bar manufacturers (including captive consumers and converters), manufacturers of forgings, and machine shops (for the production of, for instance, fasteners, turbines, and electrical and industrial equipment); other end users account for approximately \*\*\* of net shipments (generally applications where surface appearance is not critical or will be altered during fabrication processing, such as during stamping).<sup>29</sup> Most hot-rolled flat bars are used in structural applications, pressure vessels, and in conversion to angles.

The primary consumers of stainless steel cold-formed bars are end users, including machine shops and equipment manufacturers. Captive consumption and conversion account for a much lower percentage of shipments when compared with hot-rolled bars, according to AISI data. Accordingly, dimensional tolerance, surface condition, appearance, and finish are more critical; applications include aircraft landing gear, automotive valves and fittings, marine propeller shafts, pump shafts, and drive shafts. Although cold-formed stainless steel bars could be substituted for hot-rolled bars in most instances, it is commercially impractical to do so from a cost standpoint; it is unlikely that hot-rolled bars could be substituted for cold-formed bars from a technical standpoint.

### Comparison of Imported and Domestic Product

According to information presented at the staff conference by petitioners, there is little or no difference in quality between the domestic products and their imported counterparts and the imported products may be substituted for stainless steel bar produced in the United States within certain limits.

On the other hand, counsel for Indian producers Grand Foundry Ltd. and ISIBARS Ltd. and a witness for a domestic importer from that country indicated that the Indian product is inferior in quality and delivery. Respondents claim that imports from India are not fungible with the stainless steel bar produced by the U.S. industry or imported from other countries because of significant

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<sup>28</sup> Respondents' joint postconference brief, app. 3, pp. 13-14.

<sup>29</sup> Ibid, p. 23.

quality differences, different end uses, and different market niches.<sup>30</sup> Although Indian respondents indicated they sell bars only in grades 303, 304, and 316 in the United States, these are the three highest volume grades.<sup>31</sup>

Abe Bright Shaft Manufacturing Co., one of the Japanese respondents, alleged that its sales include niche products comprising pump shaft quality bars, boat shaft quality bars, bright hexagonal and square bars, and \*\*\* round bar; although each of these grades (except \*\*\*) is produced in the United States, the firm alleged that competition is attenuated by the regionality of consumption of its imports, their historical presence, and insufficient capacity by domestic producers to serve the U.S. market. Abe Bright further alleged that there were no imports of its product from other countries. In the case of \*\*\* bars, used for electromagnetic valves and control actuators, respondent company alleged there is no domestic production and no imports from other countries.<sup>32</sup>

With respect to the other Japanese and Italian producers, respondents alleged that a majority of their imports are of hot-rolled stainless steel flat bars produced on bar mills and stated that petitioning companies produce a tiny amount of this product and cannot meet the range of thicknesses or widths required by domestic consumers. Respondents claim that domestic producers largely "abandoned" the flat bar market segment for several years and only recently resumed production. Respondents assert that their imports mostly compete with "c-flats" or "Gauer" flat bars, which they estimate account for approximately \*\*\* of flat-bar consumption. Avesta Sheffield, an importer from Italy, further indicated that its imports from Italy displaced imports from Sweden, a non-subject country.<sup>33</sup>

Avesta-Sheffield also stated that one of the products it markets under the name "Prodec" is a stainless steel round bar intended for processing by screw machine operators. According to Avesta and an independent distributor, "Prodec" is not produced by the domestic industry. Although it competes with another product, "Project 70," produced by Carpenter Technology, "Prodec" differs chemically (calcium-rich) from competing grades of machining quality stainless bar which rely on sulfur additions for machinability.<sup>34</sup>

#### Substitute Products

With respect to the uses indicated earlier, acceptable alternatives to stainless steel bar that possess the same or similar degree of corrosion and heat-resistance may not exist. Other steels may possess a greater degree of machinability, and some coatings (for instance, galvanized carbon steel) may provide corrosion resistance, but these machining steels and metallic coatings do not provide corrosion or heat resistance to the same degree or across the same range of atmospheres and temperatures as stainless steel. The substitution by ceramics, which possess greater heat-resistance capability, would be limited by the limited fracture resistance and the lack of ductility or flexibility of ceramics. Other substitutes for stainless steel bar include aluminum (limited by its lower tensile strength and hardness), titanium alloys, high nickel alloys, and plastics. Substitutability of each of these is limited by technical and cost factors.

#### U.S. Tariff Treatment

Imports of the stainless steel bar subject to these investigations are provided for in the HTS subheadings shown in the following tabulation:

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<sup>30</sup> Postconference brief of Klayman & Associates, p. 7.

<sup>31</sup> Petitioners' postconference brief, p. 42.

<sup>32</sup> Respondents' joint postconference brief, pp. 16-18.

<sup>33</sup> Rogers & Wells, Post-Conference Brief, p. 8.

<sup>34</sup> Letter from ESCO Corp. of Jan. 24, 1994.

<u>HTS subheading</u>	<u>Description</u>	<u>Tariff rate<sup>1</sup></u> <u>(percent ad</u> <u>valorem)</u>
7222.10.00	Bars and rods (not in coils), not further worked than hot-rolled, hot-drawn or extruded.....	10.6 %
7222.20.00	Bars and rods (not in coils), not further worked than cold-formed or cold-finished.....	10.6 %
7222.30.00	Bars and rods (not in coils), other....	10.6 %

<sup>1</sup> Tariff rates are column 1-general (most-favored-nation) rates of duty for these products, applicable to imports from the five subject countries, shown in percent ad valorem.

Special rates of duty are applicable to eligible imports under the three subheadings upon importer claim: imports of stainless steel bar may enter free of duty if they come from beneficiary countries under the Caribbean Basin Economic Recovery Act, under the United States-Israel free trade agreement, and the Andean Trade Preference Act; and stainless steel bars are eligible for reduced rates of duty if they qualify as goods of Mexico (9.5 percent to 10.4 percent ad valorem) or of Canada (4.2 to 4.6 percent) under the NAFTA and HTS general note 12.

#### Voluntary Restraint Agreements

On July 19, 1983, the President announced his decision to grant import relief to the specialty steel industry (the industry producing stainless steel and alloy tool steel products) for a period of 4 years under section 203 of the Trade Act of 1974 (53 F.R. 52897). Under the relief, quotas were placed on imports of stainless steel bars, stainless steel wire rods, and certain alloy tool steel products; and increased duties were imposed on stainless steel plates and stainless steel sheets and strip. On July 16, 1987, the President announced his decision to extend the existing import relief for a period from July 20, 1987, through September 30, 1989.

Relief to the specialty steel industry was further extended for 2½ years, until March 31, 1992, and the program largely was incorporated into the system of Voluntary Restraint Agreements (VRAs) that covered imports of carbon steel and certain alloy steel products.<sup>35</sup> Existing quotas on specialty steel were unaffected by their incorporation into the VRAs for all countries. The EC-10 (now called the European Union (EU)) negotiated limits on rods, bars, and alloy tool steel as part of its VRA, and Brazil, like Japan, whose VRA included the specialty steel products subject to quotas, was unaffected by the slight alteration in the program. India was not party to either program.

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<sup>35</sup> When the VRAs were extended in 1989, the United States sought to address the causes of unfair trade and to eliminate subsidies to and overcapacity in the steel industry. These agreements sought 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 GATT through incorporation in the Uruguay Round of negotiations (Press release of USTR, Dec. 12, 1989, and accompanying Steel Trade Liberalization Program Fact Sheet). As envisioned, negotiations were to be completed by Dec. 1990 with the new agreement called the Multilateral Steel Agreement (MSA). On March 31, 1992, negotiations on a MSA were suspended without agreement, although considerable progress had been made. Negotiators have reportedly agreed to continue to meet bilaterally and multilaterally, but no specific time schedule has been set.

In terms of these investigations, the period between January 1990 and March 31, 1992, comes under the VRA-based quota system. (The extended VRAs were divided into two periods, Oct. 1, 1989, through Dec. 31, 1990, or initial period, and Jan. 1, 1991, through Mar. 31, 1992, or final period.) Stainless steel bar comprised a category in the agreements. Although stainless steel bar was a separate category, it is difficult to judge how binding the VRAs were because of product shifting within the periods and quota groups, and because the quotas for Italy and Spain were part of the EU's total quota, 7.4 percent of U.S. apparent domestic consumption as calculated by Data Resources Inc.<sup>36</sup> According to USITC, *Quarterly Report on the Status of the Steel Industry*, information on export limits is presented in the following tabulation (*in metric tons*):

	<u>Export limits by period</u>	
	<u>Oct. 1989- Dec. 31, 1990</u>	<u>Jan. 1, 1991- Mar. 31, 1992</u>
Brazil . . . . .	1,068	1,068
EU . . . . .	2,775	2,775
Japan . . . . .	19,055	20,649

## THE U.S. MARKET

### Apparent U.S. Consumption

Data on apparent U.S. consumption of stainless steel bar are presented in tables 2 and 3. The Commission received questionnaire responses from the vast majority of known producers of stainless steel bar during the period examined, and data are believed to account for virtually 100 percent of open-market shipments of stainless steel bar during that period.<sup>37</sup> Although reported subject imports account for 87 percent, by volume, of 1992 official U.S. import statistics for stainless steel bar, Commerce statistics have been used in the calculation of apparent U.S. consumption.

Data presented in table 2 are based on company transfers (including internally consumed products) and open-market shipments reported by U.S. producers in their questionnaire responses. Apparent open-market U.S. consumption is presented in table 3. Estimates of apparent consumption for hot-rolled and cold-formed bar separately are presented in appendix C.

The quantity of apparent U.S. consumption of stainless steel bar (including captive consumption) increased by 12 percent between 1990 and 1991 and remained virtually constant in 1992. The increase in consumption was stronger, however, at 16 percent, when the interim periods of 1993 and 1992 are compared. Between 1990 and 1992, subject imports rose, as did U.S. producers' domestic shipments. Import tonnage not subject to investigation also increased overall during this period. All sources, including domestic products, shared in the market growth in January-September 1993.

Value-based data reflect the marked rise in consumption from 1990 to 1991, but show a 7-percent decline in 1992. As with volume-based data, the first 9 months of 1993 showed an upturn when compared to the corresponding 1992 period.

<sup>36</sup> The restraint limits are more accurately defined as export limits, as the countries under agreement (the EC Commission and Eurofer, the European steel producers association, allocated the quota in the case of EC exports) controlled their shipments of exports instead of U.S. import quotas.

<sup>37</sup> Coverage of 1992 producer shipments is 65 percent, based on AISI data. This coverage estimate is believed to be significantly understated, however, because AISI data include shipments of products, such as angles and small structural shapes, not subject to these investigations.

Table 2

Stainless steel bar: Total market shipments of domestic product, U.S. imports, and apparent U.S. consumption, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
<i>Quantity (short tons)</i>					
Producers' U.S. shipments . . . . .	124,705	135,211	133,539	101,494	111,799
U.S. imports from--					
Subject sources . . . . .	21,441	28,814	28,901	20,058	28,643
Other sources . . . . .	14,341	16,196	17,818	12,666	15,671
Total . . . . .	35,782	45,010	46,719	32,725	44,314
Apparent consumption . . . . .	160,487	180,221	180,258	134,219	156,113
<i>Value (1,000 dollars)</i>					
Producers' U.S. shipments . . . . .	443,167	477,217	436,417	344,666	345,710
U.S. imports from--					
Subject sources . . . . .	65,143	81,734	72,756	51,233	69,219
Other sources . . . . .	42,650	48,935	49,309	35,668	38,117
Total . . . . .	107,793	130,669	122,065	86,902	107,336
Apparent consumption . . . . .	550,960	607,886	558,482	431,568	453,046

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

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

When consumption is viewed on an open-market basis, trends in the data are substantially similar (table 3). U.S. producers' shipments showed an overall climb from 1990 to 1992, and subject imports also increased. A comparison of the interim January-September periods shows a vigorous increase in consumption, shared, although not equally, by domestic producer shipments and subject imports.

Parties note that, as with other steel products, the range of end-use applications for stainless steel bar is sufficiently varied so as to make demand for bar sensitive to fluctuations in overall economic activity. Accordingly, both producers and importers generally agree that the trend in demand during the period examined mirrored the recession, first trending downward from 1990 to early 1992, and then upward for the remainder of the period, with demand stronger at the end of the period than at the beginning. Petitioners point out some conflicting factors affecting stainless steel bar consumption, notably a slowing of demand because of cutbacks in the defense industry, balanced off somewhat by an increase in the number of new applications for stainless steel, particularly in the automotive industry.<sup>38</sup> Importers were somewhat more equivocal on whether demand for stainless

<sup>38</sup> For the most part petitioners see rising demand for stainless steel bar. Transcript, p. 30.

Table 3

Stainless steel bar: Open-market U.S. shipments of domestic product, U.S. imports, and apparent U.S. open-market consumption, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
<i>Quantity (short tons)</i>					
Producers' domestic open-market shipments	***	***	***	***	***
U.S. imports from--					
Subject sources	21,441	28,814	28,901	20,058	28,643
Other sources	14,341	16,196	17,818	12,666	15,671
Total	35,782	45,010	46,719	32,725	44,314
Apparent consumption	***	***	***	***	***
<i>Value (1,000 dollars)</i>					
Producers' domestic open-market shipments	***	***	***	***	***
U.S. imports from--					
Subject sources	65,143	81,734	72,756	51,233	69,219
Other sources	42,650	48,935	49,309	35,668	38,117
Total	107,793	130,669	122,065	86,902	107,336
Apparent consumption	***	***	***	***	***

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

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

steel bar is increasing, with most questionnaire respondents detecting no change, or a slight increase, in demand during the period examined.<sup>39</sup>

#### U.S. Producers

According to the petition, during 1990-93 there were eight U.S. producers of stainless steel bar.<sup>40</sup> Five of these firms are petitioners; two additional firms, Electralloy Corp., Oil City, PA, and Crucible Specialty Metals Division, Syracuse, NY, subsequently became members of the petitioning group.<sup>41</sup> The remaining firm, Armco Stainless and Alloy Products, Baltimore, MD, ceased production of stainless steel bar in April 1993. The petitioning firms and their plant locations are shown in the following tabulation:

<sup>39</sup> On the contrary, at the conference respondents' economic expert testified that there has been a significant increase in demand during the period examined, particularly in 1993, with another strong year expected in 1994. Transcript, pp. 153, 190. According to respondents, the market growth is expected to be concentrated in hot-rolled bar, as such applications as food and chemical processing are expected to be strong. Transcript, p. 191.

<sup>40</sup> Petition, p. 3.

<sup>41</sup> Collier, Shannon, Rill, & Scott, letters to Donna R. Koehnke, Jan. 4 and 7, 1994.

<u>Petitioning firm</u>	<u>Plant location</u>
Al Tech . . . . .	Dunkirk, NY
Carpenter . . . . .	Reading, PA & Orangeburg, SC
Electralloy . . . . .	Oil City, PA
Crucible . . . . .	Syracuse, NY
Republic . . . . .	Massillon, OH, Canton, OH, & Chicago, IL
Slater . . . . .	Fort Wayne, IN
Talley . . . . .	Hartsville, SC

The Commission sent questionnaires to the 8 producers identified in the petition and also sent questionnaires to 11 additional firms suspected of producing stainless steel bar, in part based on their known production of stainless steel wire rod or other stainless products. Seventeen companies responded, 11 of which provided usable data on stainless steel bar.<sup>42</sup> Accordingly, two companies did not respond to the questionnaire.<sup>43</sup>

Manufacturers of stainless steel bar can generally be classified either as "integrated" producers who melt, pour, and cast stainless steel, hot-roll the bar on their own rolling mills, and then finish the bar in-house or as "finishers" who buy hot-rolled bar and perform only the last set of operations. Of responding producers, eight firms (including all the petitioners) were integrated firms, and three were cold-finishers.<sup>44</sup> All responding firms indicated that they serve a national market area.<sup>45</sup>

Several responding producers indicated that they are subsidiaries or divisions of larger firms. Those firms and their corporate parents are listed in the tabulation below:

<u>Producer</u>	<u>Parent company</u>	<u>Percent ownership</u>
	* * * * *	

Carpenter is the largest U.S. producer of stainless steel bar, with a \*\*\*-percent share, by value, of U.S. shipments in 1992. Carpenter produces stainless bar in two U.S. facilities, Reading, PA, and Orangeburg, SC, and is a fully integrated producer, engaging in all steps of the production process from melting through hot-rolling to cold-finishing.<sup>46</sup> Along with stainless bar products, Carpenter produces other alloy bar products, stainless rod and wire products, and other alloy wire and rod products in its Reading and Orangeburg plants. In its \$135 million "multi-mill" in Reading, Carpenter manufactures an extraordinarily diverse product line and has the capacity to melt over \*\*\* different grades, each designed for unique applications depending on customer requirements.<sup>47</sup>

<sup>42</sup> Of these, 8 firms provided usable data on hot-rolled stainless steel bar, and 10 firms provided such data regarding cold-formed bar. Of responding companies, 7 were petitioners; of non-petitioner companies, 1 supported the petition, 1 expressed opposition, and 2 took no position.

<sup>43</sup> This group is limited to two firms that are not known to produce significant quantities of the products under investigation.

<sup>44</sup> One of the petitioners, Talley, does not have a melt shop and buys billets on the open market for hot-rolling in its plant.

<sup>45</sup> Slater indicated that \*\*\*.

<sup>46</sup> It estimated that approximately \*\*\* of its total costs were in the cold-finishing end of the production process.

<sup>47</sup> Transcript, p. 25. Carpenter noted that it often assists its customers in designing specifications based on the end use in question, as various grades of stainless steel can be put to widely varying uses depending on the chemistry of the product.

Unlike other U.S. producers, Carpenter sells the vast majority of its production through company-owned distributor outlets, a system that helps it achieve better control over inventories and ensure customer satisfaction.<sup>48</sup>

### U.S. Importers

The petition identified 12 firms that allegedly imported stainless steel bar from the subject countries during the period examined. Imports of stainless steel bar enter the United States under HTS subheadings 7222.10.00 (for "hot-rolled" bar), 7222.20.00 (for "cold-formed" or "cold-finished" bar), and 7222.30.00 (for "other bars and rods"). Therefore, because the petition defined the scope of the investigations as covering all imports entering under these subheadings, the Commission sent importers' questionnaires to 88 firms importing more than \$50,000 each under these subheadings or under the headings reserved for stainless steel wire rod in either calendar year 1990, 1991, 1992 or during January-August 1993, according to the Customs Net Import File (CNIF). The Commission sent importer questionnaires to all firms named in the petition (most of whom were listed in the CNIF), as well as to all firms to whom it had sent producer questionnaires, for a total of 107 questionnaires.

The Commission received usable data on stainless steel bar from 45 companies. Twenty-six firms, mostly importers of stainless steel wire rod, reported that they did not import any of the products covered by the questionnaire.<sup>49</sup> Seventeen firms reported imports of hot-rolled stainless steel bar, and 33 firms reported imports of cold-formed stainless steel bar. Companies responding to the Commission's questionnaire accounted for 87 percent, by volume, of cumulated 1992 imports of stainless steel bar from the five subject countries, based on official Commerce data.

Importers of stainless steel bar can be classified into two categories: (1) "resellers" who buy the products from foreign producers and then resell them either to end users or to other, smaller, resellers; and (2) "manufacturers/end users" who use the bar in manufacturing a wide variety of downstream products. Of the 45 importers providing usable data to the Commission, only 4 were manufacturers, and the remainder were resellers.<sup>50</sup> Most importers imported from only one subject source.

There is no indication on the record that imports from the subject countries are geographically concentrated in any particular region of the United States.<sup>51</sup> Moreover, imports from each of the subject countries were spread over several firms; the tabulation below indicates the number of responding importers reporting imports in 1992 from each subject source:

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<sup>48</sup> Carpenter sells the remainder of its output to unrelated end users; it does not sell to independent distributors. Transcript, p. 62.

<sup>49</sup> Thus, 34 firms either did not respond to the questionnaire or provided data that were incomplete or otherwise unusable (2 firms could not be reached with the questionnaire). Companies known to be significant importers of stainless steel bar from the subject countries that did not respond or provided incomplete or unusable data include \*\*\*.

<sup>50</sup> This pattern reflects the general nature of the market in that very few sales are made directly to end users.

<sup>51</sup> Transcript, p. 74. Importers contended, however, that they tend to concentrate on developing markets on the West Coast because domestic producers are generally unwilling and/or unable to compete in that region. Transcript, pp. 156, 228, 254.

<u>Source</u>	<u>Number of importers reporting</u>
Brazil . . . . .	5
India . . . . .	8
Italy . . . . .	4
Japan . . . . .	18
Spain . . . . .	3

The majority of importers reporting data are subsidiaries of, or related to, larger foreign companies. These firms, and their related companies, are presented in the tabulation below:

<u>Importer</u>	<u>Parent company</u>	<u>Percent ownership</u>
	* * * * *	

### Marketing Considerations and Channels of Distribution

Both U.S. producers and importers sell mainly through distributors. Seventy-six percent of reported U.S. producer shipments of stainless steel bar were sold to distributors, about half of which were related distributors.<sup>52</sup> An even higher percentage, 98 percent, of reported import shipments were sold through distributors.<sup>53</sup>

Respondents estimate that at least 50 percent of subject imports are sold through distributors known as "mill depots."<sup>54</sup> Mill depots maintain large inventories and stock specialty products for sale to service centers. The role of mill depots is to meet the inventory needs of service centers by supplying small quantities and same day or next day deliveries to service centers.<sup>55</sup> Respondents contend that U.S. producers generally will not sell to mill depots, and thus the mill depots deal mainly in imported stainless steel bar.<sup>56</sup>

### CONSIDERATION OF MATERIAL INJURY TO AN INDUSTRY IN THE UNITED STATES

Section 771(7)(B) of the Act (19 U.S.C. § 1677(7)(B)) provides that in making its determinations in these investigations the Commission--

shall 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 (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; and

<sup>52</sup> Carpenter sells only through its own related service centers. Talley Metals sells through related distributors as well as independent service centers. Al Tech, Slater, and Republic sell only through independent service centers. Transcript, p. 69.

<sup>53</sup> Importer questionnaire responses. Respondents contend that this percentage is too high; transcript, pp. 113, 132-33, 150.

<sup>54</sup> Transcript, p. 128.

<sup>55</sup> Transcript, pp. 126-129.

<sup>56</sup> Transcript, p. 129.

may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that--

In evaluating the volume of imports of merchandise, the Commission shall 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.

In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether (I) there has been significant price underselling by the imported merchandise as compared with the price of like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.

In examining the impact required to be considered under subparagraph (B)(iii), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to, (I) actual and potential decline in output, sales, market share, profits, productivity, return on investments, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, and (IV) 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.

Available information on the volume of imports (item (B)(I) above) is presented in the section of this report entitled "U.S. Imports." Information on the other factors specified is presented in this section, and, except as noted, is based on the questionnaire responses of 11 firms that accounted for virtually all U.S. production of stainless steel bar during 1992.<sup>57</sup>

Information presented in this section is limited to data regarding all forms of stainless steel bar. The Commission also requested questionnaire respondents to report separately for the categories of hot-rolled and cold-formed bar. It is likely, however, that the basis on which the majority of U.S. producers (that is, the petitioners) reported capacity, production, shipments, and inventories of hot-rolled and cold-formed bar differs significantly from the basis on which U.S. importers reported such data, and from the basis under which other sources, such as the HTS and AISI, classify these products.<sup>58</sup> Reported data on hot-rolled and cold-formed bar are presented in appendix C.

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<sup>57</sup> According to AISI statistics.

<sup>58</sup> In its questionnaires, the Commission defined hot-rolled bar as "stainless steel bar not further worked than hot-rolled, hot-drawn, or hot-forged (i.e., produced on a hammer mill), classifiable in subheading 7222.10.00 of the HTS." Similarly, the Commission defined cold-formed bar as "stainless steel bar which has been produced either from hot-rolled stainless steel bar or from straightened rod or wire, and which has undergone a cold-rolling or cold-drawing process in order to improve surface appearance, dimensional tolerances, and grain orientation, classifiable in subheading 7222.20.00 of the HTS." Petitioners indicated at the conference that their interpretation of the hot-rolled bar definition was that all processes performed subsequent to hot-rolling constituted "further working" and, therefore, limited their reporting of hot-rolled bar to hot-rolled "black" bar.

(continued...)

## U.S. Production, Capacity, and Capacity Utilization

U.S. capacity to manufacture stainless steel bar increased in 1991, but declined slightly in 1992 and January-September 1993 (table 4). Production increased in each period. Capacity utilization levels were consistently low during the period examined, and declined overall between 1990 and 1992. Utilization of bar-producing facilities reversed direction, however, in January-September 1993, compared with the corresponding 1992 period, rising to 57 percent in the interim 1993 period.

Four producers indicated that they either perform tolling operations for other producers in their plants or send out products from their facilities for tolling by other firms. Only one of these firms, \*\*\*, indicated that such operations were substantial in value.<sup>59</sup>

Several producers reported changes in their operations during the period examined that have an impact on reported capacity and production. Al Tech enumerated \*\*\*.<sup>60</sup> Most of these \*\*\*. Electralloy reported that \*\*\*.<sup>61</sup> In late 1992, Talley \*\*\*. Crucible reported that \*\*\*. Finally, as noted above, Armco ceased its stainless bar operations in April 1993.<sup>62</sup>

Most firms indicated multishift operation, ranging from 120 to 150 hours a week, 50 weeks a year. Smaller firms, such as \*\*\*, reported single-shift operation. Responding companies indicated a wide range of other products produced in their mills, including stainless steel wire rod, angles, ingots; tool steel; nickel-based alloys; titanium wire rod; and carbon and other alloy bars. The time required to change production from one product to another was generally estimated as minimal.

In its questionnaire, the Commission requested producers to indicate whether, in their manufacture of stainless steel bar, they used such production steps as melting, pouring, casting, hot-rolling, pickling, annealing, cold-drawing, cold-finishing, and/or polishing. Data received in response to this request are presented in the following tabulation:

<u>Melting</u>	<u>Pouring</u>	<u>Casting</u>	<u>Hot-rolling</u>	<u>Pickling</u>
	*	*	*	*
	*	*	*	*
<u>Annealing</u>	<u>Cold-drawing</u>	<u>Cold-finishing</u>	<u>Polishing</u>	
	*	*	*	*
	*	*	*	*

<sup>58</sup> (...continued)

Transcript, pp. 46, 88. Respondents dispute this interpretation, contending that products that have been annealed, pickled, and/or rough-turned should have been reported in the hot-rolled category. Transcript, p. 178. As a result, data reported by the petitioners on cold-formed bar are believed to include products that other parties to the proceeding have reported as hot-rolled bar.

<sup>59</sup> \*\*\*. It reported that \*\*\*.

<sup>60</sup> These included \*\*\*.

<sup>61</sup> \*\*\*.

<sup>62</sup> As indicated in tables 4-6, Armco did not provide data for periods before July 1991. As a result, capacity, production, shipment, and inventory data for 1990 are understated, and trends in the data between 1990 and 1991 should be viewed with caution.

Table 4

Stainless steel bar: U.S. capacity, production, and capacity utilization, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993<sup>1</sup>

Item	1990	1991	1992	Jan.-Sept.—	
				1992	1993
Average-of-period capacity (short tons) . . . . .	263,363	296,003	292,503	226,397	223,064
Production (short tons) . . . . .	135,826	145,680	148,399	116,582	122,786
Capacity utilization (percent) . . . . .	52.4	49.1	50.6	53.5	57.0

<sup>1</sup> Armco did not report for periods before July 1991.

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.

Firms were also requested to indicate the share of total cost of production (COP) accounted for by each of the above steps. Data received are presented in the tabulation below (in percent):

<u>Production step</u>	<u>Share of COP</u>						
	*	*	*	*	*	*	*

#### U.S. Producers' Company Transfers, Domestic Shipments, and Export Shipments

Eleven producers reported data on their company transfers, domestic shipments, and export shipments of stainless steel bar (table 5). These data show that the quantity of U.S. shipments (company transfers and domestic shipments) increased irregularly between 1990 and 1992, by a total of 7 percent. In terms of value, however, shipments increased from 1990 to 1991, but fell in 1992 to a level below that reported for 1990. Unit values fell off consistently during the 3-year period, and also declined when the interim 1992 and 1993 periods are compared.

For these producers, volumes of export shipments were far less significant than domestic shipments during the period examined. For export shipments, both volume- and value-based data show fluctuating trends: Unit values were always higher than those associated with company transfers and domestic shipments, however. Four producers reported export shipments, primarily to European markets and to Canada. In no case did such shipments exceed 1 percent of production or of total shipments.

Shipment data for hot-rolled stainless steel bar and cold-formed stainless steel bar are presented in appendix C (tables C-2, C-3, C-5, and C-6).

Table 5  
Stainless steel bar: Shipments by U.S. producers, by types, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993<sup>1</sup>

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
<i>Quantity (short tons)</i>					
Company transfers . . . . .	***	***	***	***	***
Domestic shipments . . . . .	***	***	***	***	***
Subtotal . . . . .	124,705	135,211	133,539	101,494	111,799
Exports . . . . .	***	***	354	245	519
Total . . . . .	***	***	133,893	101,739	112,318
<i>Value (1,000 dollars)</i>					
Company transfers . . . . .	***	***	***	***	***
Domestic shipments . . . . .	***	***	***	***	***
Subtotal . . . . .	443,167	477,217	436,417	344,666	345,710
Exports . . . . .	2,354	3,738	2,122	1,601	2,458
Total . . . . .	445,521	480,955	438,539	346,267	348,168
<i>Unit value (per short ton)</i>					
Company transfers . . . . .	\$3,722	\$3,668	\$3,409	\$3,663	\$3,427
Domestic shipments . . . . .	3,462	3,463	3,195	3,255	2,941
Average . . . . .	3,554	3,529	3,268	3,396	3,092
Exports . . . . .	***	***	5,994	6,535	4,736
Average . . . . .	***	***	3,275	3,403	3,100

<sup>1</sup> Armco did not report for periods before July 1991.

Note.--Unit values are calculated using data of firms supplying both quantity and value information.

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

#### U.S. Producers' Inventories

Inventory data were supplied by 7 of the 11 firms producing stainless steel bar during the period examined (table 6).<sup>63</sup> Inventories fell off markedly between 1990 and 1991, then climbed by 9 percent in 1992, to a level 2 percent less than that of 1990. Inventories rose sharply in the 9-month 1993 period, when compared with the equivalent period of 1992. As a ratio to preceding-period U.S. shipments, such inventories followed a similar trend, except that their ratio to preceding-period shipments was unchanged in January-September 1993 when compared with the corresponding 1992 period.

<sup>63</sup> Inventories of hot-rolled stainless steel bar and cold-formed stainless steel bar are presented in appendix C.

Table 6

Stainless steel bar: End-of-period inventories of U.S. producers, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993<sup>1</sup>

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
Inventories ( <i>short tons</i> ) . . . . .	28,197	25,447	27,660	24,798	27,212
Ratio of inventories to--					
Production ( <i>percent</i> ) . . . . .	19.4	17.7	18.9	16.0	16.6
U.S. shipments ( <i>percent</i> ) . . . . .	21.1	19.1	21.0	18.3	18.3
Total shipments ( <i>percent</i> ) . . . . .	21.0	19.0	20.9	18.3	18.2

<sup>1</sup> Armco did not report for periods before July 1991.

Note.--Ratios are calculated using data of firms supplying both numerator and denominator information. Part-year inventory ratios are annualized.

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

For the most part, domestic producers of stainless steel bar do not produce to stock, except for instances in which a standard grade can be sold to more than one customer.<sup>64</sup> Lead times reported by domestic producers varied from 3 to 5 days to 8 to 10 weeks.<sup>65</sup> Responding producers reported no unusual occurrences during the period examined that may have had an effect on inventory levels.

#### U.S. Employment, Wages, and Productivity

Of the 11 firms reporting production of stainless steel bar, 10 provided usable employment data (table 7). The number of workers employed in the production of stainless steel bar increased by 6 percent from 2,013 workers in 1990 to 2,128 workers in 1991, before declining to 2,017 workers, a 5-percent drop, in 1992. The number of hours worked by these employees increased very slightly in 1991, but declined by 3 percent in 1992. Hourly compensation increased throughout the period, from \$23.32 in 1990 to over \$25.00 in 1992. During January-September 1993, the number of production workers and hours worked increased by 5 percent, compared with the number of workers and hours worked in the corresponding 1992 period.<sup>66</sup> Hourly compensation also continued to increase during interim 1993 as compared with interim 1992.

Labor productivity, as measured by tons produced per 1,000 hours, was higher in 1992 than in either 1990 or 1991. This indicator continued to trend upward marginally in January-September 1993, when compared with the corresponding period of 1992. U.S. producers' labor costs first increased in 1991, then fell back to 3 percent above their 1990 level in 1992; such costs rose slightly when the January-September periods are compared.

<sup>64</sup> Transcript, p. 62.

<sup>65</sup> Republic quoted \*\*\*.

<sup>66</sup> The closing of Armco's facilities producing stainless steel bar in April 1993, however, resulted in a reduction in Armco's workforce of 600 positions. Postconference brief of petitioners, attachment 4. Armco did not report employment data; had such data been included, upward trends seen from a comparison of the interim periods would have been significantly affected.

Table 7

Average number of total employees and production and related workers in U.S. establishments wherein stainless steel bar is produced, hours worked,<sup>1</sup> wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs,<sup>2</sup> by products, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993<sup>3</sup>

Item	1990	1991	1992	Jan.-Sept.-- 1992	1993
<u>Number of employees</u>					
All products . . . . .	12,960	12,581	12,106	11,774	11,333
<u>Number of production and related workers (PRWs)</u>					
All products . . . . .	9,130	9,040	8,885	8,622	8,471
Stainless steel bar . . . . .	2,013	2,128	2,017	1,954	2,049
<u>Hours worked by PRWs (1,000 hours)</u>					
All products . . . . .	18,257	17,086	17,589	13,315	13,216
Stainless steel bar . . . . .	4,243	4,255	4,138	3,105	3,265
<u>Wages paid to PRWs (1,000 dollars)</u>					
All products . . . . .	296,936	275,884	289,777	219,327	225,511
Stainless steel bar . . . . .	71,888	73,651	72,522	54,738	60,674
<u>Total compensation paid to PRWs (1,000 dollars)</u>					
All products . . . . .	410,240	414,715	416,073	313,143	328,916
Stainless steel bar . . . . .	98,954	104,028	103,650	77,925	86,047
<u>Hourly wages paid to PRWs</u>					
All products . . . . .	\$16.26	\$16.15	\$16.47	\$16.47	\$17.06
Stainless steel bar . . . . .	16.94	17.31	17.53	17.63	18.58
<u>Hourly total compensation paid to PRWs</u>					
All products . . . . .	\$22.47	\$24.27	\$23.66	\$23.52	\$24.89
Stainless steel bar . . . . .	23.32	24.45	25.05	25.10	26.35
<u>Productivity (short tons per 1,000 hours)</u>					
Stainless steel bar . . . . .	31.4	31.1	32.8	34.6	36.0
<u>Unit labor costs (per short ton)</u>					
Stainless steel bar . . . . .	\$742.75	\$785.70	\$763.78	\$725.32	\$731.77

<sup>1</sup> Includes hours worked plus hours of paid leave time.

<sup>2</sup> On the basis of total compensation paid.

<sup>3</sup> Firms providing employment data accounted for 91 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.

In its questionnaire, the Commission requested firms producing stainless steel bar to indicate whether the same production and related workers are employed in the production of both stainless steel bar and other products manufactured in their facilities. One producer, \*\*\*, indicated that its workers engaged in stainless steel bar production also produce stainless steel wire rod. Slater reported that \*\*\*. With regard to different varieties of stainless steel bar, such as hot-rolled and cold-formed bar, \*\*\*.<sup>67</sup>

Six producers reporting employment data noted that their workforces are represented by unions.<sup>68</sup> These firms, and the unions involved, are listed in the following tabulation:

<u>Company</u>	<u>Union</u>
Al Tech	United Steelworkers
Electralloy	United Steelworkers
Slater	United Steelworkers
Inco	United Steelworkers
Crucible	United Steelworkers
Republic	United Steelworkers
	Bricklayers & Allied Craftsmen, AFL/CIO

The Commission also requested firms producing stainless steel bar to provide detailed information concerning reductions in the number of production and related workers producing such products, if such reductions involved at least 5 percent of the workforce, or more than 50 workers. The reported layoffs are shown in the following tabulation:

<u>Firm</u>	<u>Product</u>	<u>Date</u>	<u>Number of workers</u>	<u>Duration</u>	<u>Reason</u>
*	*	*	*	*	*

#### Financial Experience of U.S. Producers

Nine U.S. producers of stainless steel bar, including all of the major ones, reported profit-and-loss information on their U.S. operations.<sup>69</sup> These companies accounted for about 92 percent of 1992 U.S. production.

Data were collected on (1) overall stainless steel bar operations, (2) hot-rolled stainless steel bar operations, and (3) cold-formed stainless steel bar operations. The data indicated no trade sales of the hot-rolled product. Instead, all of the product was transferred to cold-forming operations and was sold to other parties. Data on both hot-rolled stainless steel bar operations and cold-formed stainless steel bar operations are shown in appendix D. The data in this section, therefore, represent the combined hot-rolled/cold-formed operations of the producers.

<sup>67</sup> Field visit with \*\*\*.

<sup>68</sup> Carpenter, the largest stainless steel bar producer, is a nonunion plant.

<sup>69</sup> The producers (and their respective fiscal yearends if other than Dec. 31) are Al Tech, \*\*\*, Carpenter (June 30), Crucible, Electralloy, \*\*\*, Republic, Slater, and Talley.

## Overall Establishment Operations

Profit-and-loss data for the overall establishment operations of the producers are shown in table 8. Whereas net sales decreased only slightly from 1990 to 1991, every other financial indicator—gross profits, operating and net income, and cash flow—was down sharply. Gross profits were off by about one-third as the gross profit margin shrank from 16.6 percent of sales to 11.5 percent. This, coupled with an increase in selling, general, and administrative (SG&A) expenses, caused the operating income to decrease by about three-quarters of its 1990 level, the \$45 million net income to become a \$53 million net loss, and the cash flow to decrease from about \$126 million to about \$42 million.

Financial results continued to worsen in 1992. Even though net sales decreased only slightly from the previous year, the gross profit margin also decreased. These factors, combined with increasing "other expense" items, resulted in large net losses. Throughout the period examined, producers reported large expenses relating to \*\*\*. Interim 1993 results were much improved over the interim 1992 results. While net sales increased by a little under 5 percent, the gross profit margin increased from 9.7 percent to 14.2 percent of sales. Combined with a decline in SG&A expenses and other expense items, results were up markedly. Operating income was up about \$64 million, net income increased by about \$106 million and became positive again, and cash flow more than doubled.

In 1992, stainless steel bar sales accounted for 28 percent of overall establishment net sales.

## Stainless Steel Bar Operations

Profit-and-loss data for the stainless steel bar operations of the producers are shown in table 9. Although company transfers are quite significant (in excess of one-third of all net sales), over \*\*\* operations. Most producers neither have captive distributors nor service centers. Therefore, the sale of the product at that point is considered a trade sale as it is the first sale to an unrelated party.

\* \* \* \* \*

The industrywide operating income or (loss) is greatly affected from period to period by nonrecurring inventory valuation adjustments, environmental and restructuring charges, and postretirement benefit charges. Although these costs have been reported in accordance with generally accepted accounting principles (GAAP), they do greatly affect comparability between periods, as footnote 2 of table 9 explains.

Although net sales quantity and value both increased by nearly 10 percent from 1990 to 1991, the increase also reflects the \*\*\*. Table 10 contains selected profit and loss information on a company-by-company basis. Decreased unit sales values combined with increased unit cost of goods sold values lowered the unit gross profit by about one-third, from \$435 per ton to \$282 per ton. As a result, the increase in sales quantities could not prevent the gross profit from decreasing by more than one-quarter on an absolute basis. SG&A expenses increased by about 20 percent on an absolute basis and by about 10 percent on a per-unit basis, resulting in a \$20 million decrease in operating income, net income, and cash flow in 1991.

Table 8

Income-and-loss experience of U.S. producers on the overall operations of their establishments wherein stainless steel bar is produced, fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993<sup>1</sup>

Item	1990	1991	1992	Jan.-Sept.—	
				1992	1993
<i>Value (1,000 dollars)</i>					
Net sales . . . . .	1,622,543	1,609,174	1,606,508	1,224,632	1,282,862
Cost of goods sold . . . . .	1,353,512	1,423,493	1,434,181	1,105,254	1,101,215
Gross profit . . . . .	269,031	185,681	172,327	119,378	181,647
Selling, general, and administrative expenses . . . . .	145,712	156,383	153,929	114,961	112,820
Operating income . . . . .	123,319	29,298	18,398	4,417	68,827
Startup or shutdown expense . . . . .	7,000	0	0	0	0
Interest expense . . . . .	53,702	51,285	46,729	32,949	34,063
Other expense, net . . . . .	17,644	31,470	48,730	59,318	16,088
Net income or (loss) before income taxes . . . . .	44,973	(53,457)	(77,061)	(87,850)	18,676
Depreciation, amortization, and non-cash items . . . . .	81,273	95,090	102,735	114,185	45,338
Cash flow <sup>2</sup> . . . . .	126,246	41,633	25,674	26,335	64,014
<i>Ratio to net sales (percent)</i>					
Cost of goods sold . . . . .	83.4	88.5	89.3	90.3	85.8
Gross profit . . . . .	16.6	11.5	10.7	9.7	14.2
Selling, general, and administrative expenses . . . . .	9.0	9.7	9.6	9.4	8.8
Operating income . . . . .	7.6	1.8	1.1	0.4	5.4
Net income or (loss) before income taxes . . . . .	2.8	(3.3)	(4.8)	(7.2)	1.5
<i>Number of firms reporting</i>					
Operating losses . . . . .	1	4	5	5	4
Net losses . . . . .	3	6	7	6	6
Data . . . . .	7	9	9	9	9

<sup>1</sup> The producers, and their respective fiscal yearends if other than Dec. 31, are Al Tech, \*\*\*, Carpenter (June 30), Crucible, Electralloy, \*\*\*, Republic, Slater, and Talley.

<sup>2</sup> Cash flow is defined as net income or loss plus depreciation, amortization, and certain noncash cost or income items. The noncash adjustments were (in millions) \$31,370 in 1990; \$37,827 in 1991; \$45,674 in 1992; \$71,764 in interim 1992; and \$2,113 in interim 1993.

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

Table 9

Income-and-loss experience of U.S. producers on their operations producing stainless steel bar, fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993<sup>1</sup>

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
<i>Quantity (short tons)</i>					
Trade sales . . . . .	78,294	88,872	87,955	66,087	76,909
Intercompany transfers . . . . .	44,061	44,918	46,353	35,066	34,905
Total . . . . .	122,355	133,790	134,308	101,153	111,814
<i>Value (1,000 dollars)</i>					
Trade sales . . . . .	278,210	313,617	288,548	214,634	226,372
Intercompany transfers . . . . .	163,985	164,724	165,508	128,430	119,603
Total . . . . .	442,195	478,341	454,056	343,064	345,975
Cost of goods sold . . . . .	388,169	439,556	436,802	330,916	324,112
Gross profit . . . . .	54,026	38,785	17,254	12,148	21,863
SG&A expenses . . . . .	28,198	34,260	39,642	26,681	27,528
Operating income or (loss) <sup>2</sup> . . . . .	25,828	4,525	(22,388)	(14,533)	(5,665)
Interest expense . . . . .	15,083	11,946	10,114	9,472	6,681
Net other income or (expense) . . . . .	(415)	(2,957)	(17,654)	(24,250)	5,866
Net income or (loss) before income taxes . . . . .	10,330	(10,378)	(50,156)	(48,255)	(6,480)
Depreciation, amortization, and non-cash items . . . . .	15,723	17,458	47,592	48,064	9,192
Cash flow <sup>3</sup> . . . . .	26,053	7,080	(2,564)	(191)	2,712
<i>Value (per short ton)<sup>4</sup></i>					
Trade sales . . . . .	\$3,446	\$3,426	\$3,187	\$3,227	\$2,930
Intercompany transfers . . . . .	3,722	3,667	3,571	3,663	3,427
Average net sales . . . . .	3,545	3,507	3,319	3,378	3,085
Cost of goods sold . . . . .	3,110	3,225	3,188	3,259	2,890
Gross profit . . . . .	435	282	131	119	195
SG&A expenses . . . . .	223	247	284	262	245
Operating income or (loss) . . . . .	213	35	(154)	(143)	(50)
<i>Ratio to net sales (percent)</i>					
Cost of goods sold . . . . .	87.8	91.9	96.2	96.5	93.7
Gross profit . . . . .	12.2	8.1	3.8	3.5	6.3
SG&A expenses . . . . .	6.4	7.2	8.7	7.8	8.0
Operating income or (loss) <sup>2</sup> . . . . .	5.8	0.9	(4.9)	(4.2)	(1.6)
Net income or (loss) before income taxes . . . . .	2.3	(2.2)	(11.0)	(14.1)	(1.9)

Table continued on next page.

Table 9--Continued

Income-and-loss experience of U.S. producers on their operations producing stainless steel bar, fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993<sup>1</sup>

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
	Number of firms reporting				
Operating losses . . . . .	3	5	6	6	5
Net losses . . . . .	4	6	6	6	6
Data . . . . .	7	9	9	9	9

<sup>1</sup> The producers (and their respective fiscal year ends if other than Dec. 31) are Al Tech, \*\*\*, Carpenter (June 30), Crucible, Electralloy, \*\*\*, Republic, Slater, and Talley.

<sup>2</sup> Comparability between periods is affected by nonrecurring expenses or credits relating to inventory adjustments, restructuring costs, environmental costs, loan restructuring costs, and charges for postretirement benefits other than pensions. If deleted from the above table, the net effect would be an increase in operating income of \*\*\*.

<sup>3</sup> Cash flow is defined as net income or loss plus depreciation, amortization, and certain noncash cost or income items. The noncash adjustments were (in millions) \$0 in 1990 and 1991; \$27,929 in 1992; \$33,235 in interim 1992; and \$(5,590) in interim 1993.

<sup>4</sup> \*\*\*. Therefore, the unit values cannot be derived from the data shown.

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

Financial results were off again in 1992, although they were influenced by the nonrecurring costs previously referred to. Five of the nine producers had reduced net sales, resulting in an overall decrease of 5 percent. The unit net sales value was down by about \$188 per ton as all producers reported decreases. Even though the unit cost of goods sold decreased, the \$37 per ton decrease was \$151 per ton less than the decrease in unit sales value. Gross profits decreased by over half and were less than a third of 1990 levels. Increases in SG&A expenses and in other expenses only made the operating and net losses deeper and the cash flow negative. Although interim 1993 results were improved compared with interim 1992 results, there were still losses. The \$292 per ton decrease (about 9 percent) in unit sales value was compensated for by the almost 11 percent increase in net sales quantity, resulting in flat net sales value. At the same time, the unit cost of goods sold decreased by \$368 per ton. The result was a much reduced operating loss. Likewise, large swings in other income or expense items from \$24.2 million in expense to \$5.9 million in income likewise resulted in a much reduced net loss and a positive cash flow.

Table 10 illustrates the operational experiences of each producer. Carpenter, the \*\*\* from interim 1992 to interim 1993.

Table 10

Income-and-loss experience of U.S. producers on their operations producing stainless steel bar, by firms, fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
	<i>Value (1,000 dollars)</i>				
Net sales:					
Talley .....	\$***	\$***	\$***	\$***	\$***
Al Tech .....	***	***	***	***	***
Slater .....	***	***	***	***	***
Republic .....	***	***	***	***	***
Carpenter .....	***	***	***	***	***
Electralloy .....	***	***	***	***	***
*** .....	***	***	***	***	***
Crucible .....	***	***	***	***	***
*** .....	***	***	***	***	***
Total .....	442,195	478,341	454,056	343,064	345,975
Operating income or (loss): <sup>1</sup>					
Talley .....	***	***	***	***	***
Al Tech .....	***	***	***	***	***
Slater .....	***	***	***	***	***
Republic .....	***	***	***	***	***
Carpenter .....	***	***	***	***	***
Electralloy .....	***	***	***	***	***
*** .....	***	***	***	***	***
Crucible .....	***	***	***	***	***
*** .....	***	***	***	***	***
Total .....	25,828	4,525	(22,388)	(14,533)	(5,665)
Net income or (loss) before income taxes:					
Talley .....	***	***	***	***	***
Al Tech .....	***	***	***	***	***
Slater .....	***	***	***	***	***
Republic .....	***	***	***	***	***
Carpenter .....	***	***	***	***	***
Electralloy .....	***	***	***	***	***
*** .....	***	***	***	***	***
Crucible .....	***	***	***	***	***
*** .....	***	***	***	***	***
Total .....	10,330	(10,378)	(50,156)	(48,255)	(6,480)

Table continued on next page.

Table 10--Continued  
Income-and-loss experience of U.S. producers on their operations producing stainless steel bar, by firms,  
fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
	<i>Value (per short ton)<sup>2</sup></i>				
Net sales:					
Talley .....	\$***	\$***	\$***	\$***	\$***
Al Tech .....	***	***	***	***	***
Slater .....	***	***	***	***	***
Republic .....	***	***	***	***	***
Carpenter .....	***	***	***	***	***
Electralloy .....	***	***	***	***	***
Crucible .....	***	***	***	***	***
*** .....	***	***	***	***	***
Average .....	3,545	3,507	3,319	3,378	3,085
Cost of goods sold:					
Talley .....	***	***	***	***	***
Al Tech .....	***	***	***	***	***
Slater .....	***	***	***	***	***
Republic .....	***	***	***	***	***
Carpenter .....	***	***	***	***	***
Electralloy .....	***	***	***	***	***
Crucible .....	***	***	***	***	***
*** .....	***	***	***	***	***
Average .....	3,110	3,225	3,188	3,259	2,890
SG&A expenses:					
Talley .....	***	***	***	***	***
Al Tech .....	***	***	***	***	***
Slater .....	***	***	***	***	***
Republic .....	***	***	***	***	***
Carpenter .....	***	***	***	***	***
Electralloy .....	***	***	***	***	***
Crucible .....	***	***	***	***	***
*** .....	***	***	***	***	***
Average .....	223	247	284	262	245
Operating income or (loss):					
Talley .....	***	***	***	***	***
Al Tech .....	***	***	***	***	***
Slater .....	***	***	***	***	***
Republic .....	***	***	***	***	***
Carpenter .....	***	***	***	***	***
Electralloy .....	***	***	***	***	***
Crucible .....	***	***	***	***	***
*** .....	***	***	***	***	***
Average .....	213	35	(154)	(143)	(50)

Table continued on next page.

Table 10--Continued

Income-and-loss experience of U.S. producers on their operations producing stainless steel bar, by firms, fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
	<u>Ratio to net sales (percent)</u>				
Operating income or (loss): <sup>1</sup>					
Talley . . . . .	***	***	***	***	***
Al Tech . . . . .	***	***	***	***	***
Slater . . . . .	***	***	***	***	***
Republic . . . . .	***	***	***	***	***
Carpenter . . . . .	***	***	***	***	***
Electralloy . . . . .	***	***	***	***	***
*** . . . . .	***	***	***	***	***
Crucible . . . . .	***	***	***	***	***
*** . . . . .	***	***	***	***	***
Average . . . . .	5.8	0.9	(4.9)	(4.2)	(1.6)
Net income or (loss) before income taxes:					
Talley . . . . .	***	***	***	***	***
Al Tech . . . . .	***	***	***	***	***
Slater . . . . .	***	***	***	***	***
Republic . . . . .	***	***	***	***	***
Carpenter . . . . .	***	***	***	***	***
Electralloy . . . . .	***	***	***	***	***
*** . . . . .	***	***	***	***	***
Crucible . . . . .	***	***	***	***	***
*** . . . . .	***	***	***	***	***
Average . . . . .	2.3	(2.2)	(11.0)	(14.1)	(1.9)

<sup>1</sup> See footnote 2 in table 9.<sup>2</sup> \*\*\* did not provide sales quantities. Therefore, its per-unit data are unavailable.

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

The tabulation below shows the changes in the components of the unit cost of goods sold for stainless steel bar from 1990 through the first nine months of 1993 (in dollars per short ton).

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
Raw materials . . . . .	\$1,290	\$1,141	\$1,013	\$1,110	\$956
Direct labor . . . . .	421	392	459	471	435
Other factory costs . . . . .	1,398	1,692	1,717	1,678	1,500
Total costs . . . . .	\$3,110	\$3,225	\$3,188	\$3,259	\$2,890

Raw material costs decreased in every period as the price of scrap steel decreased and were only 33 percent of total costs in interim 1993 (as opposed to 41 percent in 1990). Conversely, direct labor costs and other factory costs were both higher during interim 1993 than they were in 1990, even though they were down from the 1992 highs. There are two main reasons for the increase.  
\*\*\*

### Investment in Productive Facilities and Return on Assets

Data on investment in productive facilities and return on assets are shown in table 11. These data are \*\*\* of the industry total. The data in table 11 show positive operating and net returns despite the losses shown in tables 8 and 9 because \*\*\*.

### Capital Expenditures

Data on U.S. producers' capital expenditures are shown in table 12. The companies that expended the most, together with their yearly expenditures (in millions) from 1990 to 1992, were \*\*\*.

### Research and Development Expenses

Data on U.S. producers' research and development expenses are shown in table 13. \*\*\* relating to stainless steel bar.

### Capital and Investment

The Commission requested U.S. producers to describe any actual or potential negative effects of imports of stainless steel bar from the five countries subject to these investigations on their firms' growth, investment, ability to raise capital, and/or development and production efforts. Their responses are shown in appendix E.

Table 11

Value of assets and return on assets of U.S. producers' operations producing stainless steel bar, fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	As of the end of fiscal year--			As of Sept. 30--	
	1990	1991	1992	1992	1993
<i>Value (1,000 dollars)</i>					
All products:					
Fixed assets:					
Original cost . . . . .	1,203,704	1,257,371	1,287,621	1,272,802	1,304,805
Book value . . . . .	661,944	667,354	646,017	655,921	636,332
Total assets <sup>1</sup> . . . . .	1,193,619	1,139,576	1,135,792	1,140,623	1,180,729
Stainless steel bar:					
Fixed assets:					
Original cost . . . . .	448,174	473,952	488,812	486,840	500,867
Book value . . . . .	282,930	287,257	278,772	284,347	274,185
Total assets <sup>2</sup> . . . . .	445,598	438,691	435,129	440,491	444,408
<i>Return on book value of fixed assets (percent)<sup>3</sup></i>					
All products:					
Operating return <sup>4</sup> . . . . .	18.6	5.9	4.7	2.1	16.6
Net return <sup>5</sup> . . . . .	6.8	(6.5)	(10.1)	(16.6)	6.1
Stainless steel bar:					
Operating return <sup>4</sup> . . . . .	9.1	2.9	(6.2)	(4.7)	(0.3)
Net return <sup>5</sup> . . . . .	3.7	(2.3)	(16.1)	(20.5)	(0.7)
<i>Return on total assets (percent)<sup>3</sup></i>					
All products:					
Operating return <sup>4</sup> . . . . .	9.8	4.0	6.9	6.3	10.7
Net return <sup>5</sup> . . . . .	3.4	(3.1)	3.3	1.7	5.1
Stainless steel bar:					
Operating return <sup>4</sup> . . . . .	6.4	4.1	3.0	5.0	3.8
Net return <sup>5</sup> . . . . .	3.1	0.9	2.4	2.4	3.7

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

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

<sup>3</sup> 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. Data for the partial-year periods are calculated using annualized income-and-loss information.

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

<sup>5</sup> 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 12

Capital expenditures by U.S. producers of stainless steel bar, by products, fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

*(1,000 dollars)*

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
<b>All products:</b>					
Land and land improvements . . . . .	117	192	0	130	9
Building and leasehold improvements . . . . .	6,433	7,428	5,529	5,602	3,094
Machinery, equipment, and fixtures . . . . .	64,435	48,000	27,141	29,759	25,241
Total . . . . .	70,985	55,620	32,670	35,491	28,344
<b>Stainless steel bar:</b>					
Land and land improvements . . . . .	48	136	0	58	4
Building and leasehold improvements . . . . .	4,020	5,460	2,961	2,763	1,399
Machinery, equipment, and fixtures . . . . .	28,519	21,423	12,227	13,100	8,286
Total . . . . .	32,587	27,019	15,188	15,921	9,689

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

Table 13

Research and development expenses of U.S. producers of stainless steel bar, by products, fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

*(1,000 dollars)*

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
All products . . . . .	17,097	17,367	17,141	12,998	12,662
Stainless steel bar . . . . .	5,247	5,398	5,065	3,940	3,805

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

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

Section 771(7)(F)(i) of the Act (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 factors<sup>70</sup>--

(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,

(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,

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<sup>70</sup> 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."

(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.<sup>71</sup>

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 Merchandise 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 the section entitled "Consideration of Material Injury to an Industry in the United States." 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)); any other threat indicators, if applicable (item (VII)); and on any dumping in third-country markets follows. Other threat indicators have not been alleged or are otherwise not applicable.

#### U.S. Importers' Inventories

Seventeen of the 45 firms reporting imports of stainless steel bar also reported end-of-period inventories of those imports. These data are presented in table 14. Data concerning end-of-period inventories of hot-rolled bar and cold-formed bar are presented in appendix C.

End-of-period inventories of stainless steel bar from the countries subject to investigation increased strongly between 1990 and 1991, and continued to move sharply upward, by 7 percent, in 1992. This indicator exhibited an even stronger percentage increase in January-September 1993 when compared with the corresponding period of 1992. Total end-of-period inventories also increased notably during the 1990-92 period. In relation to preceding-period shipments, however, inventories of imports from subject sources showed little movement during 1990-92. This ratio increased somewhat when the interim periods are compared.

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<sup>71</sup> 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."

Table 14

Stainless steel bar: End-of-period inventories of U.S. importers, by sources, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
<i>Quantity (short tons)</i>					
Brazil	780	1,190	1,235	1,068	1,097
India	***	***	576	387	1,171
Italy	334	***	***	666	***
Japan	***	***	***	***	***
Spain	***	***	***	***	***
Subtotal	5,410	6,557	6,991	5,691	7,649
Other sources	2,735	3,121	***	***	***
Total	8,145	9,678	***	***	***
<i>Ratio to U.S. shipments of imports (percent)</i>					
Brazil	36.7	47.3	38.8	33.8	24.3
India	***	***	37.0	25.7	37.1
Italy	47.9	***	***	57.5	***
Japan	***	***	***	***	***
Spain	***	***	***	***	***
Average	27.8	29.0	28.6	24.2	25.1
Other sources	44.5	41.4	***	***	***
Average	31.8	32.1	***	***	***

Note.—Ratios are calculated using data of firms supplying both numerator and denominator information. Part-year inventory ratios are annualized.

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

As is seen by comparing table 14 to table 6, importers tend to keep higher levels of inventories in relation to shipments than do domestic producers. Notwithstanding this, lead times tend to be considerably longer for orders sourced from importers than from domestic producers. Responding importers reported lead times ranging from 3 to 8 months, with most firms estimating

lead times of 4 to 6 months. Of the 36 firms responding to this question, only 5 indicated that they sell from stock.<sup>72</sup>

Except for Japan, the subject countries appear to have had problems meeting U.S. importers' delivery schedules during the period examined. Brazil, India, and Spain were specifically cited by one importer as being consistently late in delivery, with delays ranging from 1 to 6 months.<sup>73</sup>

In its questionnaire, the Commission requested importers to list any expected deliveries of stainless steel bar from Brazil, India, Italy, Japan, and Spain after September 30, 1993. Responding importers reported a total of 9,902 tons of stainless steel bar from all subject sources, of which 1,089 tons were specifically identified as from Japan; 239 tons from Italy; 225 tons from India; 119 tons from Brazil; and 34 tons from Spain.

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

#### **The Brazilian Industry**

The Commission received information from all four firms named in the petition as exporters of stainless steel bar to the United States: Acos Finos Piratini S.A. (Piratini), Acos Villares, S.A. (Villares), Eletrometal S/A Metais Especiais (Eletrometal), and Companhia Acos Especiais Itabira (Acesita). These firms accounted for 100 percent of U.S. imports of stainless steel bar from Brazil in 1992, based on official U.S. import statistics.

Table 15 shows that Brazilian firms' production of stainless steel bar increased sharply between 1990 and 1991 and at a slower rate between 1991 and 1992, for an overall climb of 28 percent. Between 1990 and 1992, as production rose strongly while capacity declined, capacity utilization grew from 41 to 53 percent. Exports to the United States increased markedly, by 64 percent, between 1990 and 1992. Calendar year 1993 exports to the United States are expected to be lower than 1992 levels, but will pick up again in 1994. The share of such exports in total Brazilian shipments increased during the period examined.

Brazilian companies also submitted information regarding hot-rolled and cold-formed stainless steel bar. Such data are presented in appendix F.

Except for Villares, stainless steel bar made up small percentages of total production for each company. Bar plants in Brazil are generally located in the state of Sao Paulo. Villares sells to the United States exclusively through a wholly-owned subsidiary, Villares Corp. of America. Companies reported production of a wide range of other products on production lines used to produce stainless steel bar, such as stainless steel wire rod; high speed steel; tool and valve steel; nickel base alloys; castings and forgings; and forged rolls. Mills were run generally on a basis of 132 hours a week, 50 to 52 weeks a year (that is, multishift operation).

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<sup>72</sup> It should be noted, however, that importer questionnaires were completed by importers of record, who generally do not fulfill a primary distribution function. In this industry, firms that do fulfill that function, known as master distributors or "mill depots," characteristically do not serve as importers of record, but buy direct from foreign mills through the importer of record (e.g., a Japanese trading company). Lead times for master and smaller distributors would likely be much lower than those for responding importers. One representative of a large mill depot, KG Specialty Steel, indicated that his firm offers same-day or next-day service on orders. Transcript, p. 129.

<sup>73</sup> Transcript, p. 227.

Table 15

Stainless steel bar: Brazil's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94

Item	1990	1991	1992	Jan.-Sept.--		Projected	
				1992	1993	1993	1994
<i>Quantity (short tons)</i>							
Capacity . . . . .	55,057	55,057	54,837	40,907	40,246	48,913	51,972
Production . . . . .	22,489	27,325	28,795	21,325	18,912	24,843	27,837
End-of-period inventories . . . . .	***	***	***	3,014	2,757	2,720	1,630
Shipments:							
Home market . . . . .	6,765	7,607	8,050	6,220	5,774	6,940	9,921
Exports to--							
The United States . . . . .	2,778	3,659	4,547	3,088	3,297	3,305	4,307
All other markets . . . . .	***	15,410	15,608	12,253	10,846	***	13,565
Total exports . . . . .	***	19,069	20,155	15,341	14,143	***	17,872
Total shipments . . . . .	***	26,676	28,205	21,561	19,917	***	27,793
<i>Ratios and shares (percent)</i>							
Capacity utilization . . . . .	40.8	49.6	52.5	52.1	47.0	50.8	53.6
Inventories to production . . . . .	***	***	***	10.6	10.9	10.9	7.0
Inventories to total ship- ments . . . . .	***	***	***	10.5	10.4	11.3	7.0
Share of total quantity of shipments:							
Home market . . . . .	***	28.5	28.5	28.8	29.0	***	35.7
Exports to--							
The United States . . . . .	***	13.7	16.1	14.3	16.6	***	15.5
All other markets . . . . .	***	57.8	55.3	56.8	54.5	***	48.8

Note.--Capacity utilization and inventory ratios are calculated from data of firms providing both numerator and denominator information.

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

Reporting firms noted several occurrences affecting stainless steel bar production during the period examined. Villares noted that \*\*\*. \*\*\*. By contrast, Eletrometal reported \*\*\*.

Export markets for these firms included such countries as Taiwan, Syria, Iran, Canada, Australia, the European Union, and other Latin American countries.

## The Indian Industry

The petition named five firms as producing stainless steel bar in India. Two of these firms were represented by counsel; however, the Commission received data from only one firm, Mukand, Ltd. (Mukand), which is believed to be the largest stainless steel bar manufacturer in India.<sup>74</sup> Based on official U.S. import statistics, Mukand accounted for \*\*\* percent, by volume, of U.S. imports of stainless steel bar from India in 1992.

Mukand's production of stainless steel bar \*\*\*, by \*\*\* percent, between 1990 and 1991, \*\*\* by \*\*\* percent in 1992, and is expected to \*\*\* in 1993 (table 16). Capacity \*\*\* during the period examined; as a result, capacity utilization levels \*\*\* because of the \*\*\*. Exports to the United States \*\*\* between 1990 and 1992 from a \*\*\* initial level. Such exports are projected to \*\*\* in 1993. As a share of total shipments, exports to the United States \*\*\* from \*\*\* percent in 1990 to \*\*\* percent in 1993.

Table 16

Stainless steel bar: India's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94

\* \* \* \* \*

Mukand also reported data on its production of hot-rolled and cold-formed stainless steel bar; those data are presented in appendix F.

Mukand reported that stainless steel bar makes up approximately \*\*\* percent of its total production. It reported that, along with stainless steel bars, it \*\*\*. This plant is \*\*\*.

Other than to the United States, Mukand exports stainless steel bar to \*\*\*. It sells to the United States primarily through one firm, \*\*\*.

## The Italian Industry

The petition listed three firms as producing stainless steel bar in Italy. All three firms were represented by counsel; however, to date the Commission has received data from only one firm, Acciaierie Valbruna, S.r.l. (Valbruna), with production facilities located in Vicenza, Italy. Based on official U.S. import statistics, data provided by Valbruna make up \*\*\* percent, by volume, of exports of stainless steel bar from Italy to the United States in 1992.<sup>75</sup>

Valbruna's production of stainless steel bar \*\*\* between 1990 and 1991 and \*\*\* in 1992 (table 17). Such production is expected to \*\*\*, however, in 1993. Utilization levels were \*\*\* throughout the period examined, but did \*\*\* during the first 9 months of 1993, when compared with the corresponding 1992 period. Exports to the United States \*\*\* between 1990 and 1992, but \*\*\* when the 9-month interim periods are compared. Valbruna projects that 1993 exports to the U.S. market will \*\*\*. As a share of total shipments, exports to the United States \*\*\* in the first 3 years

<sup>74</sup> An additional firm named in the petition, ISIBARS, Ltd., was also represented by counsel, but, to date, no data have been provided by that firm.

<sup>75</sup> Data provided by Valbruna on its exports, capacity, production, etc., of hot-rolled and cold-formed stainless steel bar are provided in app. F.

of the period examined, but are expected to \*\*\* in full-year 1993 and in 1994. In general, Valbruna expects \*\*\*.

Table 17

Stainless steel bar: Italy's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94

\* \* \* \* \*

Valbruna produces a wide variety of stainless steel products, with bar accounting for \*\*\* percent of total production. Valbruna exports stainless steel bar worldwide, including \*\*\*.

### The Japanese Industry

The petition listed five Japanese manufacturers of stainless steel bar. Four of these firms, in addition to four other firms not named in the petition, were represented by counsel.<sup>76</sup> All eight firms provided information on the industry in response to the Commission's questionnaire. These data are presented in table 18.

Reported Japanese exports to the United States, accounting for 94 percent of 1992 exports of stainless steel bar from Japan to the United States (according to official U.S. import statistics), dropped from approximately 15,000 tons in 1990 to 13,630 tons in 1991 and stayed virtually constant in 1992. Such exports are expected to increase slightly, however, by 3 percent, in 1993. Japanese production of stainless steel bar dropped substantially between 1990 and 1992, with the 1992 level 20 percent below that of 1990. Capacity remained constant throughout the period examined; thus, utilization levels, although remaining quite high, fell steadily.

As a share of total shipments, exports to the United States increased marginally between 1990 and 1992. The share of total shipments accounted for by exports to third countries also rose slightly during the period examined. Shipments were heavily concentrated in the Japanese home market throughout the period.

Of the eight reporting producers, three (Abe Bright Shaft Manufacturing Co., Ltd. (Abe Bright); Kansai Metal Industry Co., Ltd. (Kansai); and Yamashin Steel Co., Inc. (Yamashin)) were cold-finishers; that is, their production activities were limited to purchasing the hot-rolled product and to performing finishing operations in their mills. The remaining five firms were "integrated" producers in that they produced both hot-rolled and cold-formed stainless steel bar.<sup>77</sup>

For the integrated producers, stainless steel bar represented a fairly insignificant part of their product line.<sup>78</sup> Integrated producers tended to report two-shift operations, whereas cold-finishers operated their facilities only one shift. Alternative export markets were concentrated heavily in East Asia.

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<sup>76</sup> There is no indication on the record that Sumitomo Metal Industries, Ltd. (Sumitomo), the fifth firm named in the petition, is a significant producer of stainless steel bar.

<sup>77</sup> Data from all eight producers respecting their operations producing hot-rolled and cold-formed stainless steel bar are presented in appendix F.

<sup>78</sup> Except for \*\*\*, cold-finishers considered stainless steel bar a major part of their product line; \*\*\*.

Table 18

Stainless steel bar: Japan's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94

Item	1990	1991	1992	Jan.-Sept.--		Projected	
				1992	1993	1993	1994
<i>Quantity (short tons)</i>							
Capacity . . . . .	185,550	185,550	185,550	139,180	139,180	185,550	185,550
Production . . . . .	204,430	194,870	163,620	120,590	127,980	167,810	172,140
End-of-period inventories . . . . .	9,140	10,790	9,540	10,000	10,110	9,850	10,070
Shipments:							
Home market . . . . .	164,380	159,100	127,400	94,780	97,180	129,650	134,850
Exports to--							
The United States . . . . .	14,840	13,630	13,660	10,140	11,580	14,070	12,530
All other markets . . . . .	22,830	20,170	23,560	16,320	18,460	23,530	24,330
Total exports . . . . .	37,670	33,800	37,220	26,460	30,040	37,600	36,860
Total shipments . . . . .	202,050	192,900	164,620	121,240	127,220	167,250	171,710
<i>Ratios and shares (percent)</i>							
Capacity utilization . . . . .	110.2	105.0	88.2	86.6	92.0	90.4	92.8
Inventories to production . . . . .	4.5	5.5	5.8	6.2	5.9	5.9	5.8
Inventories to total shipments . . . . .	4.5	5.6	5.8	6.2	6.0	5.9	5.9
Share of total quantity of shipments:							
Home market . . . . .	81.4	82.5	77.4	78.2	76.4	77.5	78.5
Exports to--							
The United States . . . . .	7.3	7.1	8.3	8.4	9.1	8.4	7.3
All other markets . . . . .	11.3	10.5	14.3	13.5	14.5	14.1	14.2

Note.--Capacity utilization and inventory ratios are calculated from data of firms providing both numerator and denominator information.

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

## The Spanish Industry

The industry in Spain is made up of two producers: Acenor, S.A. (Acenor), located in Bilbao, and Roldan, S.A. (Roldan), headquartered in Madrid. Through their counsel, both firms supplied information to the Commission on stainless steel bar as a whole and on the separate categories of hot-rolled and cold-formed stainless steel bar.<sup>79</sup> Information on Roldan was also obtained through the American Embassy in Madrid. Data supplied by these firms, based on official U.S. import statistics, accounted for \*\*\* percent of 1992 exports to the United States of stainless steel bar.

Acenor and Roldan reported \*\*\* in production of stainless steel bar between 1990 and 1992, yet production is expected to \*\*\* in 1993 (table 19). Capacity \*\*\* in 1992, before \*\*\* when the interim periods are compared. Capacity utilization \*\*\* in 1991, before \*\*\* in 1992. The share of exports to the United States in total shipments \*\*\* from 1990 to 1992, and is expected to \*\*\* in 1993.

Table 19

Stainless steel bar: Spain's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94

\* \* \* \* \*

Roldan, accounting for \*\*\* percent of all exports of stainless steel bar to the United States in 1993, was incorporated in 1957. Its main production facility in Ponferrada, Leon Province, operates \*\*\*. Its main shareholder is \*\*\*. Other than stainless steel bar, it produces rod, wire, and angles; stainless steel bar accounts for approximately \*\*\* percent of its total production. It noted in its questionnaire response that \*\*\*. Excluding the United States, its exports are limited to \*\*\*.

Acenor, the smaller producer, is a public company controlled by the Spanish Government.<sup>80</sup> It is much less specialized in stainless steel bar production than Roldan, with the subject merchandise accounting for only \*\*\* percent of its total production. Its bar-producing plant, located in Larrondo, operates \*\*\*.<sup>81</sup>

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

#### U.S. Imports

Imports of stainless steel bar subject to these investigations are provided for under subheadings 7222.10.00, 7222.20.00, and 7222.30.00 of the HTS. HTS subheading 7222.10.00 provides for stainless steel bars not further worked than hot-drawn, hot-rolled, or extruded. Similarly, subheading 7222.20.00 provides for stainless steel bars not further worked than cold-formed or cold-finished. The residual subheading, 7222.30.00, provides for "other bars and rods;" for example, bars that have been further worked than cold-formed or cold-finished.

<sup>79</sup> Data on these latter products are presented in app. F.

<sup>80</sup> The American Embassy in Madrid noted that \*\*\*.

<sup>81</sup> Acenor noted that \*\*\*.

Of the 107 importers that received questionnaires, 76 responded, 45 of which provided usable data on imports and shipments of those imports. Based on official import statistics for stainless steel bar, responding firms accounted for 87 percent, by quantity, of imports from the five subject countries in 1992. Because the HTS subheadings are precise, data in this section regarding the quantity and value of U.S. imports of stainless steel bar are based on Commerce statistics. Data based on responses to Commission questionnaires are presented in appendix G. Data on U.S. imports of hot-rolled and cold-formed stainless steel bar are presented alternatively in appendix C (based on official U.S. import statistics) and in appendix G (based on questionnaire responses).<sup>82</sup>

There were no reported imports of stainless steel bar from subject sources by U.S. producers during the period examined. One U.S. producer, Al Tech (a member of the petitioning group), reported \*\*\*.<sup>83</sup> Another petitioner, Talley, which has a wholly-owned subsidiary, Amcan Specialty Steels, Inc., Hermitage, PA, that \*\*\*, did not \*\*\*. Talley, however, did not \*\*\*.

Imports of stainless steel bar from the subject countries showed an overall increase during the period examined, with most of the increase occurring between 1990 and 1991 (table 20). In value terms, however, such imports declined in 1992 while tonnages were still increasing slightly. As a result, unit values of imports from subject sources dropped by 11 percent between 1991 and 1992. Of the five countries subject to investigation, all but Japan showed marked increases in import value over the 1990-92 period, and all sources (including Japan) demonstrated increases in tonnages during that period. When the interim 1992 and 1993 periods are compared, all sources show notable increases in both quantity and value of imports. Unit values continued to decline in January-September 1993, when compared with the corresponding period of 1992.

#### U.S. Market Penetration by Imports

For purposes of this report, data on market penetration by imports are measured alternatively with regard to total shipments by U.S. producers, whether such shipments are sold on the merchant market or are internally transferred, and total open-market shipments by U.S. producers. Because the Commission received usable data from all the major known U.S. producers of stainless steel bar, data presented here on U.S. shipments are based on responses to Commission questionnaires. The Commission, however, received incomplete data on U.S. shipments of imports from responses to importer questionnaires.<sup>84</sup> Accordingly, data on the penetration of the U.S. market by imports of stainless steel bar are based both on data provided in response to Commission questionnaires and on official U.S. import statistics.<sup>85</sup>

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<sup>82</sup> Data in appendix C on imports of hot-rolled stainless steel bar are limited to imports under HTS subheading 7222.10.00, and data on imports of cold-formed stainless steel bar are limited to imports under HTS subheading 7222.20.00. Data exclude imports under HTS subheading 7222.30.00 because the extent to which this subheading includes merchandise not subject to investigation is unknown.

<sup>83</sup> Al Tech also \*\*\*.

<sup>84</sup> See section of the report entitled "U.S. Importers" for an enumeration of significant nonresponding importers from the subject countries.

<sup>85</sup> Market penetration data for hot-rolled and cold-formed stainless steel bar (on both a total- and open-market basis) are presented in appendix C.

Table 20

Stainless steel bar: U.S. imports, by sources, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Source	1990	1991	1992	Jan.-Sept.—	
				1992	1993
<i>Quantity (short tons)</i>					
Brazil	2,493	3,334	4,209	2,985	3,888
India	1,084	1,402	2,186	1,371	3,532
Italy	1,066	2,831	2,351	1,174	4,242
Japan	12,846	15,621	14,511	10,482	11,601
Spain	3,951	5,626	5,645	4,046	5,380
Subtotal	21,441	28,814	28,901	20,058	28,643
Other sources	14,341	16,196	17,818	12,666	15,671
Total	35,782	45,010	46,719	32,725	44,314
<i>Value (1,000 dollars)</i>					
Brazil	6,780	8,529	9,697	7,105	7,915
India	3,024	3,607	5,220	3,294	7,628
Italy	2,968	8,942	6,110	3,259	10,689
Japan	40,560	44,811	37,791	27,581	29,953
Spain	11,811	15,844	13,939	9,995	13,034
Subtotal	65,143	81,734	72,756	51,233	69,219
Other sources	42,650	48,935	49,309	35,668	38,117
Total	107,793	130,669	122,065	86,902	107,336
<i>Unit value (per short ton)</i>					
Brazil	\$2,720	\$2,558	\$2,304	\$2,380	\$2,036
India	2,789	2,574	2,388	2,403	2,159
Italy	2,784	3,159	2,599	2,775	2,520
Japan	3,157	2,869	2,604	2,631	2,582
Spain	2,989	2,816	2,469	2,470	2,423
Average	3,038	2,837	2,517	2,554	2,417
Other sources	2,974	3,021	2,767	2,816	2,432
Average	3,012	2,903	2,613	2,656	2,422

Note.—Because of rounding, figures may not add to the totals shown; unit values are calculated from unrounded figures.

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

The penetration of the U.S. market for stainless steel bar by imports of such products from the five subject countries, in terms of quantity, increased by 2.6 percentage points in 1991 over its 1990 level, before leveling off in 1992, ending up at 16.0 percent of the market (table 21). The market share of total imports, by contrast, increased consistently from 1990 to 1992. All five countries increased their share from 1990 to 1992, although Japan and Italy lost market share in 1992 from their 1991 levels. India consistently held the smallest share of the market during the 3-year period. Subject imports' market share increased again when the interim January-September periods are compared, with only Japan losing ground.

When viewed in terms of the merchant market only, market penetration by the subject imports increased overall, both in terms of quantity and value, yet, in value terms, subject imports lost market share in 1992 when compared with 1991 (table 22). This loss in market share, however, was not captured by U.S. producers; rather, nonsubject imports registered the gain. When the interim January-September periods are compared, U.S. producers resumed losing market share, yielding 3½ points, with subject imports gaining nearly 4 percentage points. Trends in market shares of individual subject sources were similar to those exhibited when the entire U.S. market is examined.

### Prices

Six of 8 U.S. producers and 2 of 33 importers responding to the Commission's questionnaires reported that they publish price lists.<sup>86</sup> Four of the 6 producers that use price lists reported that list prices are generally followed and that discounts are not typically made from the list price, although deviations from list price have increased in the past few years. The other producers reported that price lists are ineffective because prices are frequently changing because of increased competition from importers.

Sales terms vary from company to company. Most U.S. producers offer selling terms of a 1/2-percent discount if paid in 10 days and the balance due in 30 days, whereas importers' terms of sale are generally net 30 days. Producers' reported lead times were generally 1 to 3 months for orders from the mill. Importers' reported lead times for shipments from abroad were as follows: 6 months for shipments from Brazil, 4 to 6 months from India, 3 to 5 months from Italy, 5 to 6 months from Japan, and 4 months from Spain.<sup>87</sup>

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<sup>86</sup> The Commission received 11 producer questionnaire responses and 45 importer responses; however, not all of these firms provided information on price-related questions. In particular, those importers who did not import from subject countries or imported for their own end use were not required to complete this section of the questionnaire.

<sup>87</sup> Mill depots, as discussed earlier in the "Channels of Distribution" section of this report, provide same-day or next-day delivery of imported stainless steel bar to service centers. Mill depots, which specialize in small orders and quick deliveries, generally charge higher prices to service centers than those of importers. According to \*\*\*, a service center, several years ago mill depots generally charged a higher price than domestic mills, although prices have gotten closer to those offered by domestic mills in the past 3 to 4 years. Staff conversation with \*\*\*.

Table 21

Stainless steel bar: Apparent U.S. consumption and market penetration, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
<i>Quantity (short tons)</i>					
Apparent consumption . . . . .	160,487	180,221	180,258	134,219	156,113
<i>Value (1,000 dollars)</i>					
Apparent consumption . . . . .	550,960	607,886	558,482	431,568	453,046
<i>Share of the quantity of U.S. consumption (percent)</i>					
Producers' U.S. shipments . . . . .	77.7	75.0	74.1	75.6	71.6
U.S. imports from--					
Brazil . . . . .	1.6	1.8	2.3	2.2	2.5
India . . . . .	.7	.8	1.2	1.0	2.3
Italy . . . . .	.7	1.6	1.3	.9	2.7
Japan . . . . .	8.0	8.7	8.1	7.8	7.4
Spain . . . . .	2.5	3.1	3.1	3.0	3.4
Subtotal . . . . .	13.4	16.0	16.0	14.9	18.3
Other sources . . . . .	8.9	9.0	9.9	9.4	10.0
Total . . . . .	22.3	25.0	25.9	24.4	28.4
<i>Share of the value of U.S. consumption (percent)</i>					
Producers' U.S. shipments . . . . .	80.4	78.5	78.1	79.9	76.3
U.S. imports from--					
Brazil . . . . .	1.2	1.4	1.7	1.6	1.7
India . . . . .	.5	.6	.9	.8	1.7
Italy . . . . .	.5	1.5	1.1	.8	2.4
Japan . . . . .	7.4	7.4	6.8	6.4	6.6
Spain . . . . .	2.1	2.6	2.5	2.3	2.9
Subtotal . . . . .	11.8	13.4	13.0	11.9	15.3
Other sources . . . . .	7.7	8.1	8.8	8.3	8.4
Total . . . . .	19.6	21.5	21.9	20.1	23.7

Note.--Because of rounding, figures may not add to the totals shown; shares are computed from the unrounded figures.

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

Table 22

Stainless steel bar: Apparent U.S. open-market consumption and market penetration, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

\* \* \* \* \*

Almost all of the U.S. producers reported that they sell stainless steel bars nationwide.<sup>88</sup> Slightly less than half of the importers reported selling on a nationwide basis.<sup>89</sup> U.S. producers and importers indicated that they generally sell stainless steel bars on an f.o.b. basis.

Most U.S. producers and importers reported that U.S. freight costs were not an important sourcing consideration for purchasers. Reported charges ranged from 1 to 5 percent of the delivered price of stainless steel bars. All of the responding producers reported that they generally arrange the U.S. transportation to their customers; the majority of importers indicated that the purchaser generally arranges transportation.

### Quality Considerations

In response to the Commission's questionnaire, all but one of the responding U.S. producers reported that U.S.-produced stainless steel bars and those imported from the five subject countries were used interchangeably and that quality differences between U.S.-produced and imported bars were not a significant factor in their firms' sales of these products. One U.S. producer reported that imports from Brazil and India were of "generally inferior quality and extremely poor delivery performance." Another reported that "the 303 grade from India is not that well accepted, but has influenced the pricing."

Importers were asked the same questions as U.S. producers about interchangeability and quality differences. The discussion that follows is based on responses to these questions by firms that indicated that they either imported or purchased stainless steel bar from a particular subject country. The majority of responding firms reported that imports of stainless steel bar from Brazil, India, Italy, and Spain were used interchangeably with U.S.-produced products.<sup>90</sup> Conversely, only about one-third of the 18 companies that imported or purchased Japanese product reported that the product was used interchangeably with the U.S. product.

Regarding quality differences, the majority of importers and/or purchasers of imports from Brazil, India, and Spain reported that quality differences between imported and U.S.-produced stainless steel bar were not a significant factor in their firm's sales of the imported product.<sup>91</sup> Four of 7 importers and/or purchasers of the Italian product and 11 of 16 importers and/or purchasers of the Japanese product, however, reported that quality differences were a significant factor in their sales.

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<sup>88</sup> \*\*\*.

<sup>89</sup> In contrast with U.S. producers, importers generally reported selling a higher proportion of their imported stainless steel bars to customers located less than 100 miles from their U.S. selling locations.

<sup>90</sup> Specifically, 4 of 4 companies responding with respect to Brazil, 8 of 11 responding with respect to India, 6 of 8 responding with respect to Italy, and 3 of 4 responding with respect to Spain reported that these imports were used interchangeably with U.S.-produced products.

<sup>91</sup> Specifically, 3 of 3 firms responding with respect to Brazil, 6 of 10 responding with respect to India, and 4 of 4 responding with respect to Spain reported that quality differences between imported and domestic products were not a significant difference in their firm's sales of the imported product.

The Commission received a number of comments from importers concerning quality and other differences between U.S.-produced stainless steel bar and the subject imports. Comments concerning bar from Brazil include: specifications not always met, inferior quality, and late deliveries.<sup>72</sup> Importers also cited quality and other disadvantages of bar from India, including the following: lesser quality, type 303 is low sulphur and cannot be interchanged with domestic T303, which has high sulphur levels; cannot be used in all industrial applications; poor machinability and surface finish; irregular length of material; inconsistent quality between different mills in India; resulphurized grades do not always meet order specifications; and late deliveries. Responding importers did not comment on quality differences between imports from Spain and domestic products.

Importers of stainless steel bar from Italy reported several differences between U.S.-produced and imported bar from Italy. \*\*\* reported, "the duplex steels, i.e., f51, 918, Zeron 100 and 2507 which are imported under the 7222 numbers are not interchangeable as there is nothing made in the US which compares", and also, "\*\*\* and from the interest shown in it by our customers, and from our own experience, the quality is indeed very high." We also import large diameter (to 20 inch) which, we believe, is not readily available from domestic producers since Armco shut down." According to \*\*\*, its imports of \*\*\* in Italy provide improved machinability compared with U.S.-produced bar and with other imports. Finally, \*\*\* reported that its customers preferred the quality of its imports from \*\*\* over the domestic product because they can obtain better finishing results.

Importers of the Japanese product cited its many quality advantages. Comments on the quality differences and interchangeability between U.S. and Japanese bar include: higher quality and finish, consistent quality, which reduces operational cost and amount of scrapping; excellent size tolerance; good machinability and plateability; unique magnetic properties and chemical composition not available from U.S. producers; and superior delivery performance. In particular, importers cited advantages of imports from Japan of hexagonal bar, square bar, and pump shaft round bar.<sup>73</sup> Disadvantages of the Japanese product cited by importers include high prices, long lead times, and resulphurized grades of stainless round bars that do not always meet elevated sulphur levels.

### Questionnaire Price Data

The Commission requested U.S. producers and importers to provide quarterly price data between January 1990 and September 1993 for the following six products:

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<sup>72</sup> \*\*\* reported that disadvantages of imports from Brazil include "only 25 percent of T304 round bar meets all ASTM-AMS-QQS specifications required." Also, "Resulphurized grades of stainless round bar requiring elevated sulphur levels do not always meet specifications. Deliveries 2-3 months late."

<sup>73</sup> Specific comments from importers' questionnaires include: "Not many U.S. manufacturers manufacture TP630 standard size, half round bar, nor have capability for producing quality pump shaft round bar, hex, or square bar;" "Pump shaft quality bars: \*\*\* has a long standing quality reputation for its straightness, roundness and low defect percentage, and many users specify \*\*\* brand. \*\*\* produces both 416 and 316 pump shaft quality whereas Nortec, a major domestic competitor produces only T416. Boat shaft quality bars: since Armco discontinued production, Crucible basically is the only domestic producer and their production capability is limited in both grade and size;" "Due to quality differences of Japanese cold drawn finished stainless steel hexagonal bar which constitute an advantage to our firm are seam free, free from internal and surface defects and excellent machinability;" "The finish on surface and the squareness of corners are better on squares and hexes from Italy and Japan than are available on U.S. made product that we know of;" "Many alloys we handle from Japan (i.e., the specialty grades-309, 310, 321, 347-Cond B rounds and hexes are not readily available in U.S."

**PRODUCT 1:** Stainless steel bar, grade AISI 304, 4 inches in diameter, hot-rolled, rough-turned, annealed, of round shape

**PRODUCT 2:** Stainless steel bar, grade AISI 304, 1 inch in diameter, smooth-turned, annealed, of round shape

**PRODUCT 3:** Stainless steel bar, grade AISI 316, 1/2 inch in diameter, smooth-turned or cold-drawn, annealed, of round shape

**PRODUCT 4:** Stainless steel bar, grade AISI 303, 3/4 inch in diameter, cold-drawn, annealed, of hexagonal shape

**PRODUCT 5:** Stainless steel bar, grade AISI 304, 1/2 inch in diameter, smooth-turned or cold-drawn, annealed, of round shape

**PRODUCT 6:** Stainless steel bar, grade AISI 304, 1 inch wide, 2 inches thick, hot-rolled, annealed, pickled (and flat shape)

The price data were requested on an f.o.b. and delivered basis for each responding firm's largest sale and total quarterly sales to end users and distributors/service centers. The vast majority of pricing reported was for sales to distributors. Quarterly weighted-average f.o.b. prices for sales to distributors of the specified products are shown in tables 23-28 and in figures 1-3.

Table 23

Weighted-average net f.o.b. prices for sales to distributors of product 1 reported by U.S. producers and importers, and margins of underselling (overselling), by quarters, Jan. 1990-Sept. 1993

\* \* \* \* \*

### Price Trends

U.S. producer prices of the six products for which data were collected declined by 3 to 24 percent during January 1990-September 1993. Subject import prices generally declined by a greater percentage than U.S. producer prices during the period for which data were collected. Trends are discussed only for those countries and products for which there were more than three sales during January 1990-September 1993.

For product 1, U.S. producer and Japanese import prices declined by approximately the same percentages, \*\*\* percent, respectively. U.S. prices of product 2 declined by \*\*\* percent, whereas prices of Brazilian, Indian, Japanese, and Spanish imports declined by \*\*\* percent. U.S. producer prices of product 3 fell by \*\*\* percent, and prices of imports from Brazil and Spain declined by \*\*\* percent, respectively. Indian prices, reported only for 1991-93, \*\*\* during this period. U.S. producer prices and Japanese import prices of product 4 both fell by approximately \*\*\* percent during the period for which data were collected. For product 5, U.S. producer prices fell by \*\*\* percent, whereas prices of Brazilian, Indian, Japanese, and Spanish imports fell by \*\*\* percent, respectively. Finally, U.S., Brazilian, and Japanese prices of product 6 fell by \*\*\* percent, respectively. Italian imports of product 6 were present only during January 1992-September 1993 and fell by \*\*\* percent during this time period.

Table 24

Weighted-average net f.o.b. prices for sales to distributors of product 2<sup>1</sup> reported by U.S. producers and importers, and margins of underselling (overselling), by quarters, Jan. 1990-Sept. 1993

Period	United States		Brazil			India		
	Price	Quantity	Price	Quantity	Margin	Price	Quantity	Margin
	<i>Per short ton</i>	<i>Short tons</i>	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>
1990:								
Jan.-Mar . . .	\$2,731	97	\$***	***	***	\$***	***	***
Apr.-June . . .	2,907	91	***	***	***	***	***	***
July-Sept . . .	2,800	102	***	***	***	***	***	***
Oct.-Dec . . .	2,952	61	***	***	***	***	***	***
1991:								
Jan.-Mar . . .	2,938	90	***	***	***	***	***	***
Apr.-June . . .	2,889	40	***	***	***	***	***	***
July-Sept . . .	2,784	53	***	***	***	***	***	***
Oct.-Dec . . .	2,801	50	***	***	***	***	***	***
1992:								
Jan.-Mar . . .	2,760	79	***	***	***	***	***	***
Apr.-June . . .	2,672	60	***	***	***	***	***	***
July-Sept . . .	2,714	63	***	***	***	***	***	***
Oct.-Dec . . .	2,529	67	***	***	***	***	***	***
1993:								
Jan.-Mar . . .	2,521	77	***	***	***	***	***	***
Apr.-June . . .	2,611	88	***	***	***	***	***	***
July-Sept . . .	2,640	57	***	***	***	***	***	***

	Italy			Japan			Spain		
	Price	Quantity	Margin	Price	Quantity	Margin	Price	Quantity	Margin
	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>
1990:									
Jan.-Mar . . .	\$***	***	***	\$2,947	5	(7.9)	\$***	***	***
Apr.-June . . .	***	***	***	2,899	14	0.3	***	***	***
July-Sept . . .	***	***	***	2,575	26	8.1	***	***	***
Oct.-Dec . . .	***	***	***	2,686	17	9.0	***	***	***
1991:									
Jan.-Mar . . .	***	***	***	2,569	33	12.5	***	***	***
Apr.-June . . .	***	***	***	2,628	30	9.0	***	***	***
July-Sept . . .	***	***	***	2,705	17	2.8	***	***	***
Oct.-Dec . . .	***	***	***	2,506	11	10.6	***	***	***
1992:									
Jan.-Mar . . .	***	***	***	2,560	10	7.2	***	***	***
Apr.-June . . .	***	***	***	2,409	20	9.8	***	***	***
July-Sept . . .	***	***	***	2,476	8	8.8	***	***	***
Oct.-Dec . . .	***	***	***	2,122	4	16.1	***	***	***
1993:									
Jan.-Mar . . .	***	***	***	2,303	16	8.6	***	***	***
Apr.-June . . .	***	***	***	2,312	17	11.4	***	***	***
July-Sept . . .	***	***	***	2,207	29	16.4	***	***	***

<sup>1</sup> Stainless steel bar, grade AISI 304, 1 inch in diameter, smooth-turned, annealed, of round shape.

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

Table 25

Weighted-average net f.o.b. prices for sales to distributors of product 3<sup>1</sup> reported by U.S. producers and importers, and margins of underselling (overselling), by quarters, Jan. 1990-Sept. 1993<sup>2</sup>

Period	United States		Brazil			India		
	Price	Quantity	Price	Quantity	Margin	Price	Quantity	Margin
	<i>Per short ton</i>	<i>Short tons</i>	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>
1990:								
Jan.-Mar . . .	\$3,772	6	\$***	***	***	\$***	***	***
Apr.-June . . .	3,590	21	***	***	***	***	***	***
July-Sept . . .	3,435	26	***	***	***	***	***	***
Oct.-Dec . . .	3,597	24	***	***	***	***	***	***
1991:								
Jan.-Mar . . .	3,618	25	***	***	***	***	***	***
Apr.-June . . .	3,500	27	***	***	***	***	***	***
July-Sept . . .	3,497	36	***	***	***	***	***	***
Oct.-Dec . . .	3,407	8	***	***	***	***	***	***
1992:								
Jan.-Mar . . .	3,565	20	***	***	***	***	***	***
Apr.-June . . .	3,456	21	***	***	***	***	***	***
July-Sept . . .	3,578	13	***	***	***	***	***	***
Oct.-Dec . . .	3,183	15	***	***	***	***	***	***
1993:								
Jan.-Mar . . .	3,092	26	***	***	***	***	***	***
Apr.-June . . .	2,985	8	***	***	***	***	***	***
July-Sept . . .	2,919	27	***	***	***	***	***	***

	Japan			Spain		
	Price	Quantity	Margin	Price	Quantity	Margin
	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>
1990:						
Jan.-Mar . . .	\$***	***	***	\$***	***	***
Apr.-June . . .	***	***	***	***	***	***
July-Sept . . .	***	***	***	***	***	***
Oct.-Dec . . .	***	***	***	***	***	***
1991:						
Jan.-Mar . . .	***	***	***	***	***	***
Apr.-June . . .	***	***	***	***	***	***
July-Sept . . .	***	***	***	***	***	***
Oct.-Dec . . .	***	***	***	***	***	***
1992:						
Jan.-Mar . . .	***	***	***	***	***	***
Apr.-June . . .	***	***	***	***	***	***
July-Sept . . .	***	***	***	***	***	***
Oct.-Dec . . .	***	***	***	***	***	***
1993:						
Jan.-Mar . . .	***	***	***	***	***	***
Apr.-June . . .	***	***	***	***	***	***
July-Sept . . .	***	***	***	***	***	***

<sup>1</sup> Stainless steel bar, grade AISI 316, 1/2 inch in diameter, smooth-turned or cold-drawn, annealed, of round shape.

<sup>2</sup> No sales of imports from Italy were reported for product 3.

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

Table 26

Weighted-average net f.o.b. prices for sales to distributors of product 4<sup>1</sup> reported by U.S. producers and importers, and margins of underselling (overselling), by quarters, Jan. 1990-Sept. 1993<sup>2</sup>

Period	United States		Brazil			India		
	Price	Quantity	Price	Quantity	Margin	Price	Quantity	Margin
	<i>Per short ton</i>	<i>Short tons</i>	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>
1990:								
Jan.-Mar . . .	\$4,124	30	\$***	***	***	\$***	***	***
Apr.-June . .	3,958	45	***	***	***	***	***	***
July-Sept . . .	3,942	45	***	***	***	***	***	***
Oct.-Dec . . .	4,056	29	***	***	***	***	***	***
1991:								
Jan.-Mar . . .	3,944	32	***	***	***	***	***	***
Apr.-June . .	3,968	32	***	***	***	***	***	***
July-Sept . . .	3,835	44	***	***	***	***	***	***
Oct.-Dec . . .	3,830	19	***	***	***	***	***	***
1992:								
Jan.-Mar . . .	3,857	35	***	***	***	***	***	***
Apr.-June . .	3,673	33	***	***	***	***	***	***
July-Sept . . .	3,777	42	***	***	***	***	***	***
Oct.-Dec . . .	3,762	28	***	***	***	***	***	***
1993:								
Jan.-Mar . . .	3,529	50	***	***	***	***	***	***
Apr.-June . .	3,614	41	***	***	***	***	***	***
July-Sept . . .	3,458	28	***	***	***	***	***	***

	Japan			Spain		
	Price	Quantity	Margin	Price	Quantity	Margin
	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>	<i>Per short ton</i>	<i>Short tons</i>	<i>Percent</i>
1990:						
Jan.-Mar . . .	\$***	***	***	\$***	***	***
Apr.-June . .	***	***	***	***	***	***
July-Sept . . .	***	***	***	***	***	***
Oct.-Dec . . .	***	***	***	***	***	***
1991:						
Jan.-Mar . . .	***	***	***	***	***	***
Apr.-June . .	***	***	***	***	***	***
July-Sept . . .	***	***	***	***	***	***
Oct.-Dec . . .	***	***	***	***	***	***
1992:						
Jan.-Mar . . .	***	***	***	***	***	***
Apr.-June . .	***	***	***	***	***	***
July-Sept . . .	***	***	***	***	***	***
Oct.-Dec . . .	***	***	***	***	***	***
1993:						
Jan.-Mar . . .	***	***	***	***	***	***
Apr.-June . .	***	***	***	***	***	***
July-Sept . . .	***	***	***	***	***	***

<sup>1</sup> Stainless steel bar, grade AISI 303, 3/4 inch in diameter, cold-drawn, annealed, of hexagonal shape.

<sup>2</sup> No sales of imports from Italy were reported for product 4.

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

Table 27

Weighted-average net f.o.b. prices for sales to distributors of product 5 reported by U.S. producers and importers, and margins of underselling (overselling), by quarters, Jan. 1990-Sept. 1993

\* \* \* \* \*

Table 28

Weighted-average net f.o.b. prices for sales to distributors of product 6 reported by U.S. producers and importers, and margins of underselling (overselling), by quarters, Jan. 1990-Sept. 1993

\* \* \* \* \*

Figure 1

Stainless steel bars: Weighted-average net f.o.b. prices of products 1 and 2 sold to distributors, by quarters, Jan. 1990-Sept. 1993

\* \* \* \* \*

Figure 2

Stainless steel bars: Weighted-average net f.o.b. prices of products 3 and 4 sold to distributors, by quarters, Jan. 1990-Sept. 1993

\* \* \* \* \*

Figure 3

Stainless steel bars: Weighted-average net f.o.b. prices of products 5 and 6 sold to distributors, by quarters, Jan. 1990-Sept. 1993

\* \* \* \* \*

**Price Comparisons**

Imports of stainless steel bars from the subject countries, with the exception of Italy, were generally priced lower than U.S.-produced stainless steel bars. Imports from Brazil were priced lower than U.S.-produced products in 33 of 43 comparisons by margins ranging from 1.4 to 18.2 percent. Indian import prices were lower than U.S.-producer prices in 26 of 29 comparisons by margins ranging from 2.3 to 44.8 percent. Imports from Japan were priced 0.3 to 28.4 percent lower than U.S.-produced products in 33 of 55 possible comparisons. Imports from Spain were priced lower than U.S.-produced stainless steel bar in 38 of 50 comparisons with margins ranging from 0.2 to 22.5 percent. Prices of imports from Italy were priced about equal to or higher than U.S.-produced products in 10 of 13 possible comparisons by margins of 0.4 to 12.1 percent.

**Lost Sales and Lost Revenues**

Four U.S. stainless steel bar producers reported detailed lost sales allegations involving competition from stainless steel bar imported from all of the subject countries except from Brazil.

Two producers reported detailed lost revenues allegations involving Italy and Japan. The value and quantity of alleged lost sales and lost revenues for each country are shown in the following tabulation:

	<u>Value</u> (1,000 dollars)	<u>Quantity</u> (short tons)
Lost sales:		
India.....	1,670	624
Italy.....	824	446
Japan.....	5,117	1,939
Spain.....	1,398	316
India/Japan/Spain....	3,460	1,248
Total.....	12,469	4,573
Lost revenues:		
Japan.....	45	500
Italy/Japan.....	25	144
Total.....	70	644

Staff spoke with 6 of the 11 purchasers named in lost sales and lost revenues allegations. The results of these conversations are discussed below.

\*\*\* was named in lost sales allegations by \*\*\*. \*\*\* allegedly lost sales to imports from Japan totaling \*\*\* tons and \$\*\*\* during 1990-93. \*\*\*. \*\*\* alleged \*\*\* lost sales of \*\*\* because of lower-priced imports from \*\*\*. \*\*\* because of lower-priced imports from \*\*\*.

Staff spoke with \*\*\*. \*\*\* said that his firm has not purchased imports from \*\*\*. Concerning the allegations involving \*\*\* said that the domestic quoted prices supplied by \*\*\* looked reasonable but that his firm did not purchase \*\*\* product during 1993 because it was priced too high. \*\*\*.

\*\*\* added that imports comprised 80 to 85 percent of \*\*\*'s purchases. \*\*\* purchased imports from Brazil, Japan, and Spain during the past 3 years as well as from nonsubject sources, including Germany, Korea, and Poland. \*\*\* said that stainless steel bar from Brazil, Spain, Germany, Korea, and Poland is priced lower than U.S.-produced bar but that bar from Japan was priced about the same as domestically produced bar. He said that the quality of the Japanese product was very good, particularly on hexagons and squares and that customers specifically request Japanese product for these shapes. In addition, \*\*\* purchases type 17-4 (equivalent to type 630) stainless steel bar from Japan because of its limited availability from U.S. producers. Finally, \*\*\* purchases from domestic sources mainly because of the shorter lead times, although the better quality of U.S.-produced bar compared with most imports is also a factor.

In another instance, \*\*\* allegedly lost sales \*\*\* because of lower priced imports from \*\*\*. Staff spoke with \*\*\* named in the allegation. \*\*\* purchased only U.S.-produced stainless bar until 2 to 3 years ago, when his firm started purchasing imports from various sources including \*\*\* because of the low prices. He said that the tonnages reported in the allegation sounded reasonable. \*\*\* said that prices of \*\*\* imports were much lower than domestic prices, although the quality of the imported bar was good. He said, however, that imports from \*\*\* had much poorer delivery, service, and longer lead times than U.S. producers. Finally, he said that the various domestic suppliers either do not produce small sizes of bar or do not offer competitive prices on these sizes.

\*\*\* also alleged losing sales of \*\*\* short tons of stainless steel bars priced at \$\*\*\* because of lower priced imports from \*\*\*. \*\*\* named in the allegation, could not comment on the allegation \*\*\*. \*\*\* told staff that his firm had increased its percentage of import purchases from about 30 percent of total purchases during 1989-90 to about 40 to 45 percent of purchases in 1993. He said that imports had traditionally been priced slightly lower than U.S.-produced stainless steel bar because of the longer lead times but that this gap had widened during the past 3 years. According to \*\*\*, imports from India and, to a lesser extent, imports from such nonsubject countries such as Korea, Poland, Russia, and Yugoslavia have led a downward trend in domestic and import prices during the past 3 years.

\*\*\*, however, would not purchase stainless steel bar from India because it had experienced severe quality problems with Indian bar during 1990-92. \*\*\* said that Indian bar often did not meet customer specifications and was "not acceptable at any price." Regarding imports from other sources, \*\*\* said that imports from Japan had long delivery times, about 6 months, but that delivery was reliable, quality excellent, and suppliers of the Japanese product offered good technical support. He said imports from Japan were priced higher than other imports but lower than U.S.-produced bars. The second highest priced and highest quality imports, according to \*\*\*, were those from Italy. \*\*\* said that Italian round bars were generally priced higher than domestic round bars but that square and hexagonal bars from Italy were priced lower than those produced in the United States. \*\*\* further said that imports from Spain were of average quality and reliability but that importers of the Spanish product offered poor technical support. Also, he said that imports from Brazil were of average to slightly below average quality, had longer lead times than Japan, and erratic deliveries.

\*\*\* purchases mainly commodity grades of stainless steel bar that, \*\*\* said, are available from domestic sources as well as from all five subject countries. He said, however, that the imported products compete mainly on the small diameter sizes which certain domestic producers, such as Slater, do not produce and other U.S. producers do not price these sizes competitively.

\*\*\* was named in a \*\*\* lost sale allegation by \*\*\*. The sale, allegedly lost to lower priced imports from \*\*\*. Staff spoke with \*\*\*, who said that the prices and quantities sounded correct and that his firm purchased product from \*\*\* because it was priced 5 percent less than domestic product in 1992. \*\*\* said that about 50 percent of his firm's purchases are of U.S.-produced product and 50 percent of its purchases are of imports, mainly from Japan and Spain. He said that, for the past year and one-half, prices of U.S., Japanese, and Spanish bar have been about equal. Reasons for purchasing imports include the high quality of Japanese imports and certain sizes of hexagonal bar that are not generally available from U.S. producers but are imported from Japan and Spain.

\*\*\* said that price is a very important factor \*\*\* industry because stainless steel bar \*\*\*. Nevertheless, \*\*\* does not purchase imports from certain sources, such as India, which are priced much lower than imports from Spain, Japan, and U.S.-produced product. \*\*\* said that, in the one shipment his firm purchased from India, the product contained low amounts of sulphur and was hard to machine, and, therefore, \*\*\* would not purchase stainless steel bar from India in the future.

\*\*\* alleged losing a sale of \*\*\* because of lower priced imports from \*\*\*. \*\*\*. Staff spoke with \*\*\*, the company named in the allegation. \*\*\*. \*\*\* has purchased bar imported from \*\*\* for about 6 years and that the quality has been improving steadily each year to being about equal to that of U.S. producers. He also said that the price of \*\*\* bar is about 5 to 7 percent lower than domestic prices. \*\*\* said that the prices quoted in the allegation sounded accurate but that he could not verify the tonnage. He added that another domestic producer, \*\*\*, had offered a low price close to that of importers of \*\*\* material. \*\*\*.

\*\*\* alleged that, in a sale to \*\*\*, it had to lower its price on tons of \*\*\* from \$\*\*\* per pound to \$\*\*\* because of lower-priced imports from Italy and Japan. \*\*\*. \*\*\* purchases mainly

from U.S. producers but that it had increased its purchases of imports in the past few years. \*\*\* said that there had been quality problems with Indian and Spanish material in the past but that the quality of these products had improved greatly. He said that Brazilian stainless steel bar was equal in quality to U.S.-produced products and that Japanese products were as good as, or better than, domestic products. He said that cutbacks in the defense industry had greatly decreased demand for stainless steel products and that this was greatly affecting the stainless steel bar industry. Regarding the allegation, \*\*\* said that U.S. producers did lower their prices because of competition from \*\*\* imports. \*\*\*.

### Exchange Rates

Quarterly data reported by the International Monetary Fund for the five subject countries are shown in figure 4 and discussed below.<sup>24</sup>

#### Brazil

The nominal value of the Brazilian cruzeiro depreciated by 99.97 percent in relation to the U.S. dollar during January 1990-September 1993. When adjusted for movements in producer price indexes in the United States and Brazil, the real value of the cruzeiro depreciated by 25 percent during January 1990-September 1993.

#### India

The nominal value of the Indian rupee depreciated by 46 percent against the U.S. dollar while the real value of the rupee depreciated by 25 percent during January 1990-September 1993.

#### Italy

The nominal value of the Italian lire depreciated by 21 percent against the U.S. dollar during January 1990-September 1993. Italian producer price index data were not available for 1993. Available data show that the real value of the lire appreciated by 1 percent during January 1990-December 1992.

#### Japan

The Japanese yen appreciated by 40 percent in nominal terms and 28 percent in real terms in relation to the U.S. dollar during January 1990-September 1993.

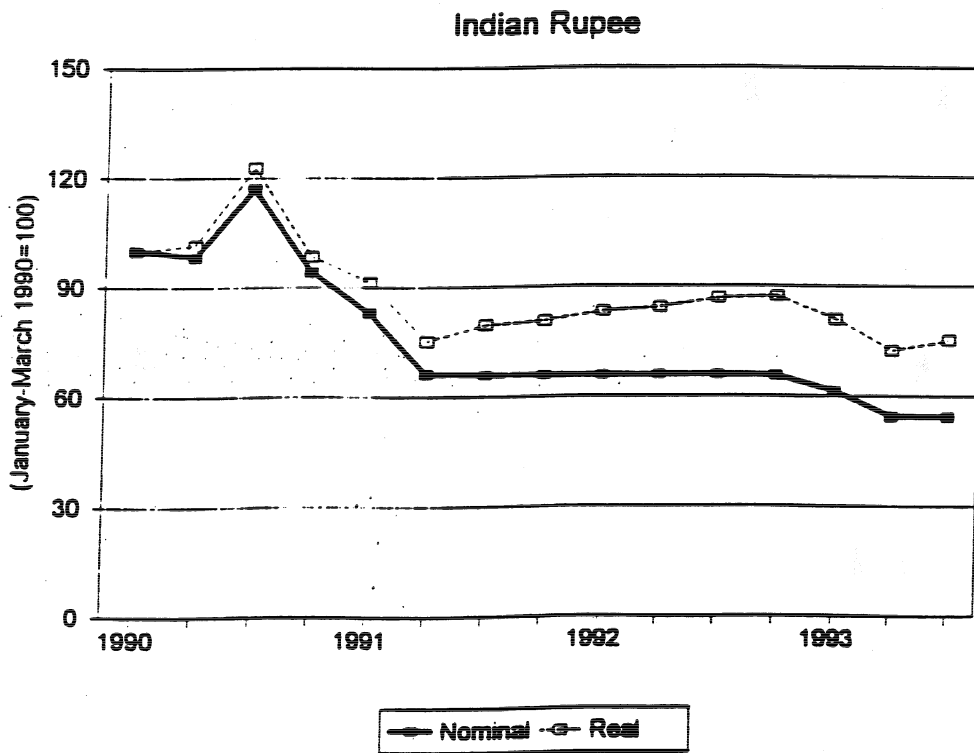
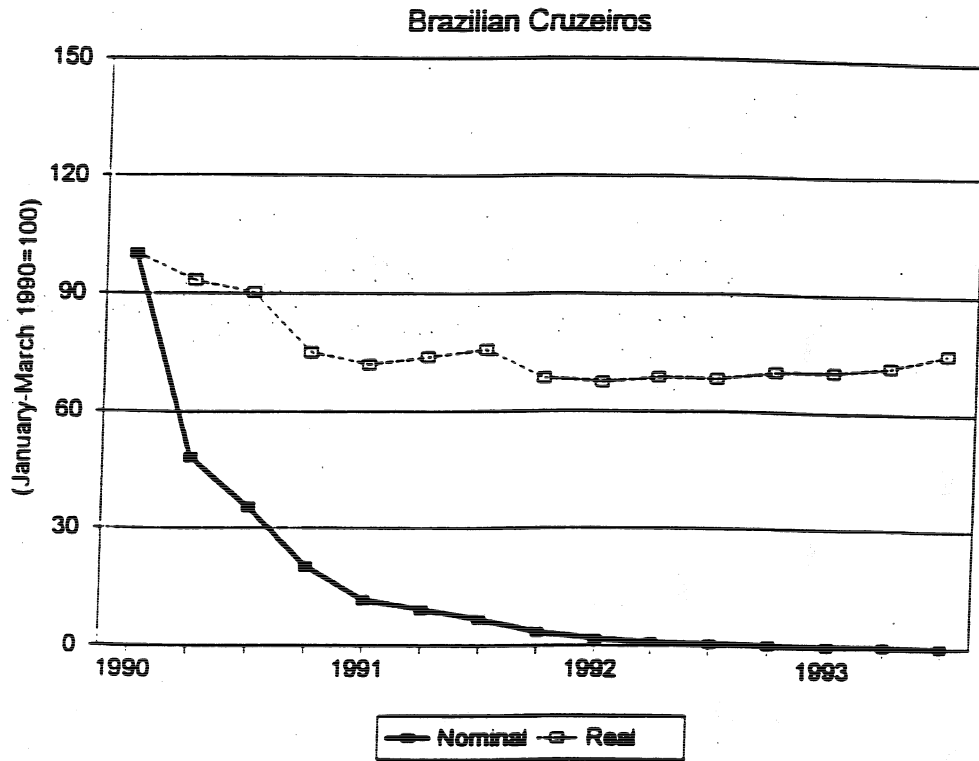
#### Spain

The Spanish peseta depreciated by 19 percent in nominal terms and 17 percent in real terms in relation to the U.S. dollar during January 1990-September 1993.

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<sup>24</sup> International Financial Statistics, January 1994.

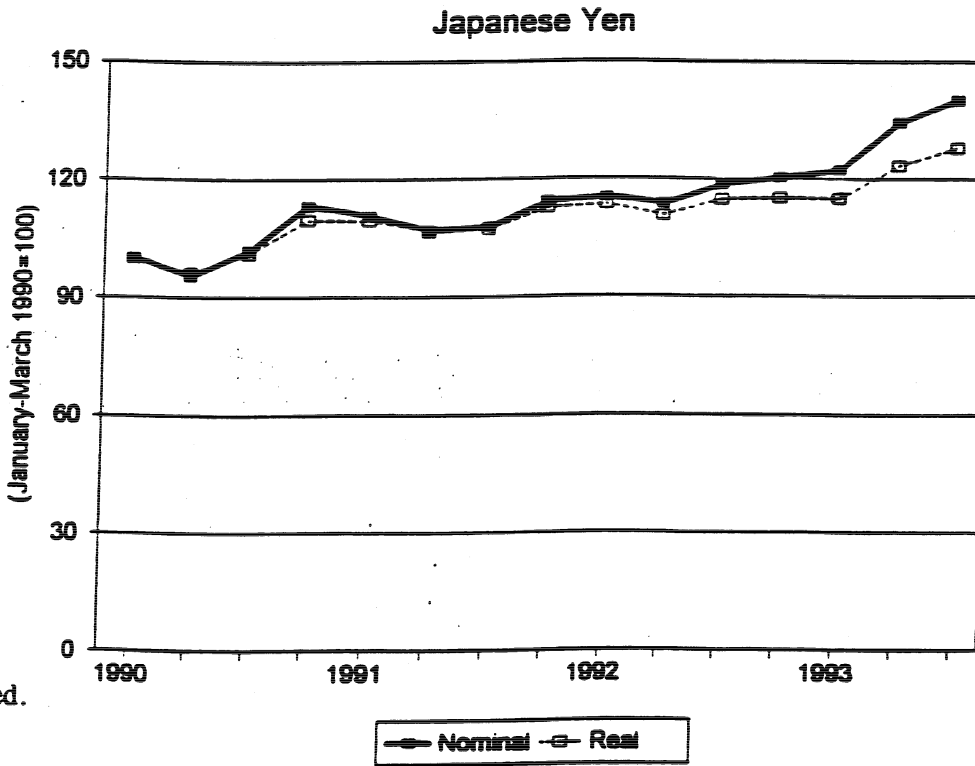
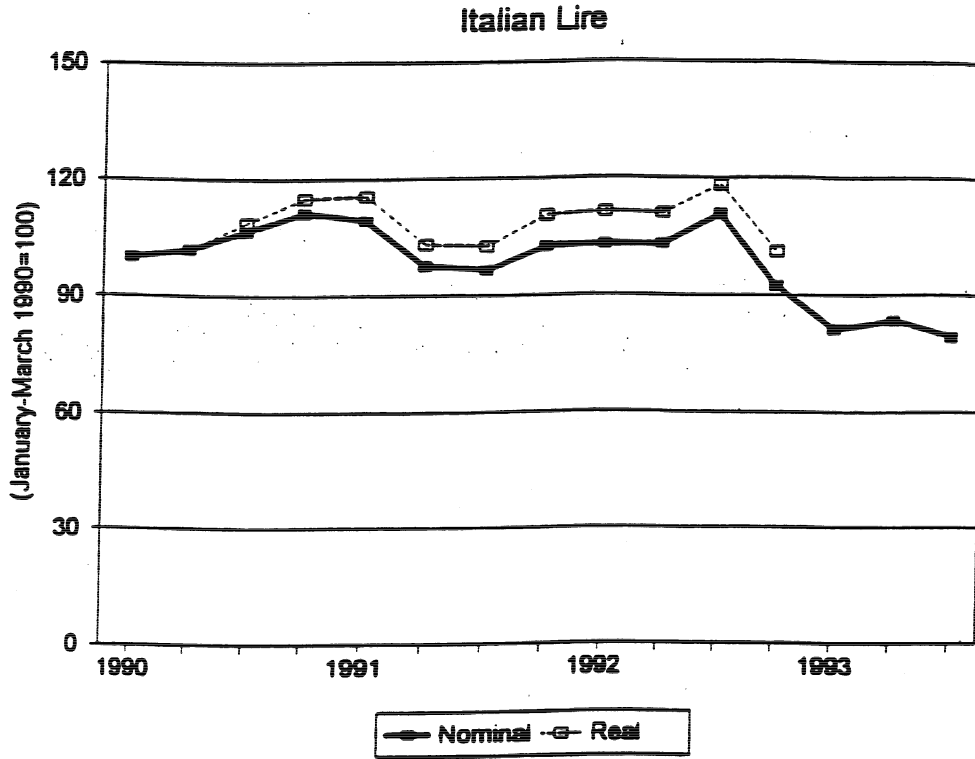
Figure 4  
 Indexes of the nominal and real exchange rates between the U.S. dollar and selected foreign currencies, by quarters, Jan. 1990-Sept. 1993



Continued.

Figure 4—Continued

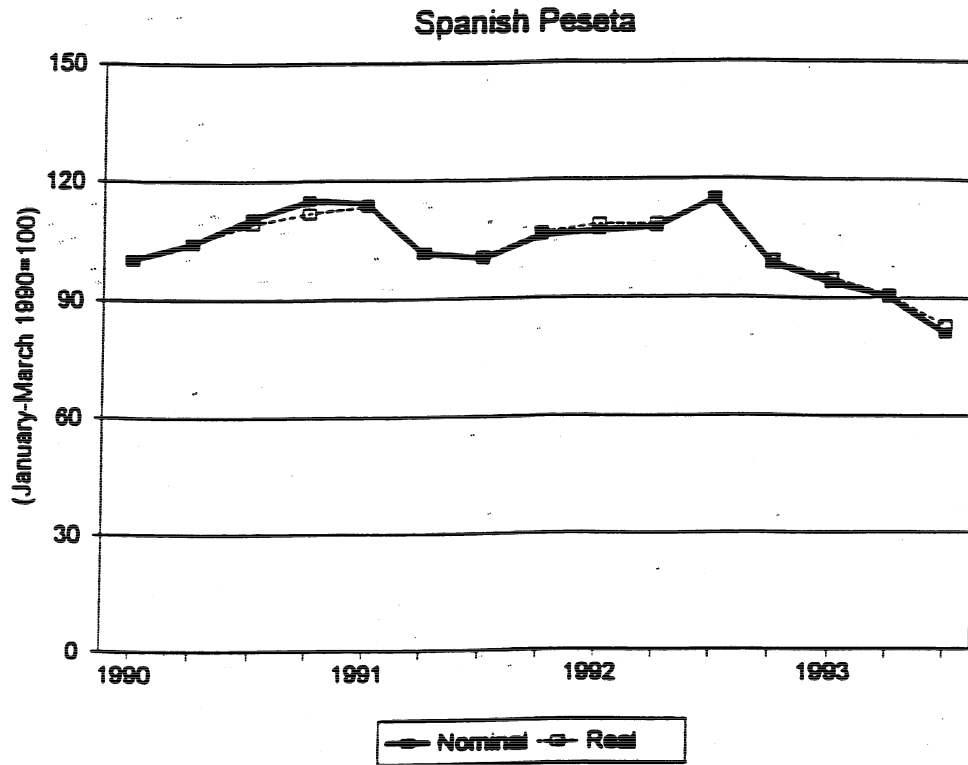
Indexes of the nominal and real exchange rates between the U.S. dollar and selected foreign currencies, by quarters, Jan. 1990-Sept. 1993



Continued.

Figure 4—Continued

Indexes of the nominal and real exchange rates between the U.S. dollar and selected foreign currencies, by quarters, Jan. 1990-Sept. 1993



Source: International Monetary Fund, International Financial Statistics, Jan. 1994



**APPENDIX A**  
**FEDERAL REGISTER NOTICES**



(Investigations Nos. 731-TA-678 through 682; Preliminary)

**Stainless Steel Bar From Brazil, India, Italy, Japan, and Spain**

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

**ACTION:** Institution and scheduling of preliminary antidumping investigations.

**SUMMARY:** The Commission hereby gives notice of the institution of preliminary antidumping investigations Nos. 731-TA-678 through 682 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Brazil, India, Italy, Japan, and Spain of stainless steel bar, provided for in subheadings 7220.11.00, 7220.12.50, 7222.10.00, 7222.20.00, and 7222.30.00 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value.<sup>1</sup> The Commission must complete preliminary antidumping investigations in 45 days, or in this case by February 14, 1994.

For further information concerning the conduct of these investigations 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 B (19 CFR part 207).

**EFFECTIVE DATE:** December 30, 1993.

**FOR FURTHER INFORMATION CONTACT:** Jonathan Seiger (202-205-3183), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202-205-1810. Persons with mobility impairments who will need special

<sup>1</sup> For purposes of these investigations, the term "stainless steel bar" means articles of stainless steel in straight lengths that have been either hot-rolled, forged, turned, cold-drawn, cold-rolled, or otherwise cold-finished, or ground, having a uniform solid cross section along their whole length in the shape of circles, segments of circles, ovals, rectangles (including squares), triangles, hexagons, octagons, or other convex polygons, as well as hot-rolled flat-rolled products from 6.35 to 254 mm (inclusive) in width and 3.18 mm and over in thickness. Except as specified above, the term does not include stainless steel flat-rolled products, wire, angles, shapes, or sections. Stainless steel bar includes cold-finished stainless steel bars that are turned or ground in straight lengths, whether produced from hot-rolled bar or from straightened and cut rod or wire, and reinforcing bars that have indentations, ribs, grooves, or other deformations produced during the rolling process.

assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000.

**SUPPLEMENTARY INFORMATION:**

**Background**

These investigations are being instituted in response to a petition filed on December 30, 1993, by Al Tech Specialty Steel Corp., Dunkirk, NY; Carpenter Technology Corp., Reading, PA; Republic Engineered Steels, Inc., Massillon, OH; Slater Steels Corp., Fort Wayne, IN; Talley Metals Technology, Inc., Hartsville, SC; and the United Steelworkers of America, AFL-CIO/CLC.

**Participation in the Investigations and Public Service List**

Persons (other than petitioners) wishing to participate in the investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in §§ 201.11 and 207.10 of the Commission's rules, not later than seven (7) 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 these investigations 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 these preliminary investigations available to authorized applicants under the APO issued in the investigations, provided that the application is made not later than seven (7) 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.

**Conference**

The Commission's Director of Operations has scheduled a conference in connection with these investigations for 9:30 a.m. on January 20, 1994, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Parties wishing to participate in the conference should contact Jonathan Seiger (202-205-3183) not later than January 18, 1994, to arrange for their appearance. Parties in support of the imposition of antidumping duties in these investigations and parties in opposition to the imposition of such

duties will each be collectively allocated one hour within which to make an oral presentation at the conference. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the conference.

#### **Written Submissions**

As provided in §§ 201.8 and 207.15 of the Commission's rules, any person may submit to the Commission on or before January 25, 1994, a written brief containing information and arguments pertinent to the subject matter of the investigations. Parties may file written testimony in connection with their presentation at the conference no later than three (3) days before the conference. If briefs or written testimony contain BPI, they must conform with the requirements of §§ 201.6, 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 investigations must be served on all other parties to the investigations (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:** These investigations are being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to section 207.12 of the Commission's rules.

Dated: January 4, 1994.

By order of the Commission.

**Donna R. Koehnke,**  
*Secretary.*

[FR Doc. 94-401 Filed 1-6-94; 8:45 am]

BILLING CODE 7020-02-P

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[A-351-825, A-533-810, A-475-813, A-588-833 and A-469-905]

**Initiation of Antidumping Duty Investigations: Stainless Steel Bar From Brazil, India, Italy, Japan and Spain**

**AGENCY:** Import Administration, International Trade Administration, Department of Commerce

**EFFECTIVE DATE:** January 27, 1994.

**FOR FURTHER INFORMATION CONTACT:** Mary Jenkins or Shawn Thompson, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone (202) 482-1756, or (202) 482-3965.

**INITIATION OF INVESTIGATIONS:**

**The Petitions**

On December 30, 1993, we received petitions filed in proper form by five producers of stainless steel bar (AL Tech Specialty Steel Corp., Carpenter Technology Corp., Republic Engineered Steels, Slater Steels Corporation and Talley Metals Technology, Inc.) and one labor union (United Steelworkers of America, AFL-CIO/CLC) (collectively, petitioners). On January 4, 1994, and January 7, 1994, Electralloy Corp. and the Crucible Specialty Metals Division of the Crucible Materials Corp., respectively, notified the Department that they are also petitioners in these investigations. In accordance with 19 CFR 353.12, the petitioners allege that imports of stainless steel bar from Brazil, India, Italy, Japan and Spain are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are materially injuring, or threaten material injury to, a U.S. industry.

The petitioners have stated that they have standing to file the petitions because they are interested parties, as defined under sections 771(9)(C) and 771(9)(D) of the Act, and because the petitions were filed on behalf of the U.S. industry producing the product subject to these investigations. If any interested party, as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act, wishes to register support for

or opposition to these petitions, it should file a written notification with the Acting Assistant Secretary for Import Administration.

Under the Department's regulations, any producer or reseller seeking exclusion from a potential antidumping duty order must submit its request for exclusion within 30 days of the date of the publication of this notice. The procedures and requirements are contained in 19 CFR 353.14.

#### Period of Investigation

The period of investigation is July 1, 1993 to December 31, 1993.

#### Scope of Investigations

For purposes of these investigations, the term "stainless steel bar" means articles of stainless steel in straight lengths that have been either hot-rolled, forged, turned, cold-drawn, cold-rolled or otherwise cold-finished, or ground, having a uniform solid cross section along their whole length in the shape of circles, segments of circles, ovals, rectangles (including squares), triangles, hexagons, octagons or other convex polygons. Stainless steel bar includes cold-finished stainless steel bars that are turned or ground in straight lengths, whether produced from hot-rolled bar or from straightened and cut rod or wire, and reinforcing bars that have indentations, ribs, grooves, or other deformations produced during the rolling process.

Except as specified above, the term does not include stainless steel semi-finished products, cut length flat-rolled products (i.e., cut length rolled products which if less than 4.75 mm in thickness have a width measuring at least 10 times the thickness, or if 4.75 mm or more in thickness having a width which exceeds 150 mm and measures at least twice the thickness), wire (i.e., cold-formed products in coils, of any uniform solid cross section along their whole length, which do not conform to the definition of flat-rolled products), and angles, shapes and sections.

The stainless steel bar subject to these investigations is currently classifiable under subheadings 7222.10.00, 7222.20.00 and 7222.30.00 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheading is provided for convenience and customs purposes, our written description of the scope of these investigations is dispositive.

For purposes of these initiations we are considering the subject merchandise to be one class or kind of merchandise. We invite interested parties to comment on this issue by March 25, 1994.

#### United States Price and Foreign Market Value

##### Brazil

Petitioners based United States price (USP) on January-March 1993 invoices issued by the U.S. subsidiary of Acos Villares SA (Villares), a Brazilian producer of stainless steel bar, to an unrelated U.S. customer. Since USP was based on C&F terms of sale, petitioners deducted from USP amounts for U.S. duty, ocean freight, marine insurance, and harbor maintenance and U.S. merchandise processing fees.

Petitioners used Villares' delivered home market prices as the basis for FMV. These prices and related expenses were contained in a market research report. FMV was based on actual tax-exclusive, May-June 1993 delivered sales prices of Villares to unrelated customers in Brazil. Petitioners deducted from FMV an amount for inland freight.

Petitioners indicate that the home market price used for FMV was reported in U.S. dollars, thus taking into account Brazil's hyperinflationary economy.

Based on a comparison of USP to FMV, the dumping margin alleged by petitioners for stainless steel bar from Brazil is 19.43 percent.

##### India

Petitioners calculated USP based on two different methodologies. First, petitioners obtained a July 1993 U.S. price quote for stainless steel bar from India to an unrelated U.S. customer. Since the prices were quoted C&F for delivery to the east or west coast of the United States, petitioners deducted from USP amounts for import duties, ocean freight, marine insurance, and harbor maintenance and U.S. merchandise processing fees.

Petitioners calculated a second weighted-average USP using the average import values of stainless steel bar from India for August and September 1993. The unit values were derived from U.S. Department of Commerce import statistics.

Petitioners used Indian home market prices for stainless steel bar from Mukand Ltd., the largest stainless steel bar producer in India, as the basis for FMV. These prices were contained in a market research report. Petitioners deducted from these prices taxes, insurance, freight, and a distributor's margin based on information in the market research report. Because the comparison of USP and FMV involved non-identical merchandise, petitioners made an adjustment for differences in merchandise based on information contained in the market research report.

For purposes of this initiation, we have accepted petitioners' calculation of USP based on the first methodology. Accordingly, the range of dumping margins of stainless steel bar from India based on a comparison of USP to FMV alleged by petitioners under this methodology is 11.26 to 21.02 percent.

##### Italy

Petitioners based USP on price quotations for U.S. sales made by Cogne, an Italian producer of stainless steel bar, to an unrelated U.S. customer. Since these USPs were quoted FOB duty paid, petitioners deducted the applicable import duties.

Petitioners calculated FMV using two methodologies. First, petitioners used Cogne's delivered home market prices as the basis for FMV. These prices were contained in a market research report. Petitioners deducted from these prices inland freight and insurance based on information contained in the same report.

Second, petitioners based FMV on constructed value (CV). Petitioners used CV because they alleged that Cogne's home market sales are being made at prices below the cost of production (COP). Petitioners also allege that another Italian company, Bolzano, is making home market sales of stainless steel bar at prices below the COP. These allegations are based on a comparison of home market prices for Cogne and Bolzano, obtained from the market research report, with COP. COP was based on the COP of an efficient U.S. producer of stainless steel bar, adjusted for known differences in costs between the United States and Italy. Where petitioners calculated CV, they used the COP derived from this U.S. producer and added the statutory minimum of eight percent for profit.

The Department is initiating COP investigations for the two companies whose petitioners provided company-specific home market prices, contingent upon whether these companies become respondents in this investigation. The Department is not initiating COP investigations for those companies and exporters whose petitioners did not provide company-specific home market prices.

Petitioners allege a price-to-price dumping margin for stainless steel bar from Italy of 15.15 percent. Petitioners allege a price-to-CV dumping margin of 157.03 percent.

##### Japan

Petitioners based USP on June 1993 sales invoices from Daido Steel Sheet Corporation (Daido), a Japanese producer of stainless steel bar, to an

unrelated U.S. customer. Since the USPs were quoted ex-dock, duty paid, Los Angeles, petitioners deducted from USP amounts for U.S. duty, ocean freight, marine insurance, harbor maintenance and U.S. merchandise processing fees.

Petitioners used Daido's delivered May-June 1993 home market sales prices as the basis for FMV. These prices were contained in a market research report. To calculate an ex-factory price, except for credit, petitioners used expense information from the market research report. For credit, petitioners used the rate in effect in Japan for March 1993 as reported in the International Financial Statistics, July 1993. Petitioners deducted from FMV an amount for inland freight and insurance, trade discounts, rebates and sales promotion expenses, advertising and warranties. Petitioners made circumstance-of-sale adjustments for credit and packing.

Based on a comparison of USP to FMV, the dumping margins alleged by petitioners for stainless steel bar from Japan range from 48.00 to 61.47 percent.

#### *Spain*

Petitioners based USP on a September 1993 price quote for U.S. sales made by Acenor, a Spanish producer of stainless steel bar, to an unrelated U.S. company. Since USP was quoted on a direct mill delivery basis, petitioners deducted the applicable import duties, ocean freight, marine insurance, harbor maintenance and U.S. merchandise processing fees.

Petitioners calculated FMV using two methodologies. First, petitioners used Acenor's delivered home market prices as the basis for FMV. These prices were contained in a market research report. Petitioners deducted inland freight from FMV using information contained in the same report.

Second, petitioners based FMV on CV because they alleged that Acenor's home market sales are being made at prices below the COP. Petitioners also allege that another Spanish company, Roldan, is making home market sales of stainless steel bar at prices below the COP. These allegations are based on a comparison of home market prices for Acenor and Roldan, obtained from the market research report, with COP. COP was based on the COP of an efficient U.S. producer, adjusted for known differences in costs between the United States and Spain. Where petitioners calculated CV, they used the COP from this producer and added the statutory minimum of eight percent for profit.

The Department is initiating COP investigations for the two companies where petitioners provided company-specific home market prices, contingent

upon whether these companies become respondents in this investigation. The Department is not initiating COP investigations for those companies and exporters where petitioners did not provide company-specific home market prices.

Petitioners allege a price-to-price dumping margin for stainless steel bar from Spain of 36.82 percent. Petitioners allege a price-to-CV dumping margin of 144.85 percent.

#### *Initiation of Investigations*

We have examined the petitions on stainless steel bar from Brazil, India, Italy, Japan and Spain, and have found that the petitions meet the requirements of section 732(b) of the Act. Therefore, we are initiating antidumping duty investigations to determine whether imports of stainless steel bar from Brazil, India, Italy, Japan and Spain are being, or are likely to be, sold in the United States at less than fair value.

#### *Preliminary Determination by the International Trade Commission*

The International Trade Commission (ITC) will determine by February 14, 1994, whether there is a reasonable indication that imports of stainless steel bar from Brazil, India, Italy, Japan and Spain are materially injuring, or threaten material injury to, a U.S. industry. A negative ITC determination on any one of these investigations will result in that investigation being terminated; otherwise, the investigations will proceed according to statutory and regulatory time limits.

This notice is published pursuant to section 732(c)(2) of the Act and 19 CFR 353.13(b).

Dated: January 19, 1994.

Joseph A. Spetrini,

Acting Assistant Secretary for Import Administration.

[FR Doc. 94-1776 Filed 1-26-94; 8:45 am]

BILLING CODE 2510-02-P



**APPENDIX B**  
**CALENDAR OF THE PUBLIC CONFERENCE**



## CALENDAR OF PUBLIC CONFERENCE

Those listed below appeared as witnesses at the United States International Trade Commission's conference:

**Subject** : STAINLESS STEEL BAR FROM BRAZIL, INDIA, ITALY,  
JAPAN, AND SPAIN

**Inv. No.** : 731-TA-678 through 682 (Preliminary)

**Date and Time** : January 20, 1994 - 9:30 a.m.

The session was held in connection with the investigations in the Main Hearing Room (room 101) of the U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C.

### In support of imposition of antidumping duties:

Collier, Shannon, Rill, & Scott  
Washington, DC  
On behalf of

Al Tech Specialty Steel Corp.  
Carpenter Technology Corp.  
Republic Engineered Steels, Inc.  
Slater Steels Corp.  
Talley Metals Technology, Inc.  
United Steelworkers of America, AFL-CIO/CLC.

James H. Mintun, Jr., Vice-President, Al Tech Specialty Steel Corp.  
William J. Pendleton, Director, Corporate Affairs, Carpenter Technology Corp.  
Donald Bailey, President and CEO, Talley Metals Technology Corp.  
Randall Oertel, Slater Steels Corp.  
John Vought, Republic Engineered Steels

David A. Hartquist )  
Laurence J. Lasoff )--OF COUNSEL

Patrick J. Magrath, Managing Director, Georgetown Economic Services

**In opposition to the imposition of antidumping duties:**

**Willkie, Farr, & Gallagher**  
Washington, DC  
**On behalf of**

**Daido Steel Co., Ltd.**  
**Sanyo Special Steel Co., Ltd.**  
**Pacific Metals Co., Ltd.**  
**Aichi Steel Works, Ltd.**  
**Tohoku Steel Co., Ltd.**  
**Yamashin Steel Co., Ltd.**  
**Abe Bright Shaft Mfg. Co., Ltd.**  
**Kansai Metal Industry Co., Ltd.**

**Kenneth J. Pierce     )—OF COUNSEL**  
**Edmund W. Sim**

**Willkie, Farr, & Gallagher**  
Washington, DC  
**On behalf of**

**Acos Villares, S.A.**  
**Companhnia Acos Especiais Itabira (ACESITA)**  
**Eletrometal, S.A.**

**Kenneth J. Pierce     )—OF COUNSEL**  
**William B. Lindsey**

**George V. Egge, Jr., P.C.**  
Washington, DC  
**On behalf of**

**Roldan, S.A.**  
**Acenor, S.A.**  
**Union de Empresas Sideurgicas**

**George V. Egge         )—OF COUNSEL**  
**Carrie Simon**

**In opposition to the imposition of antidumping duties--Continued**

**Rogers & Wells  
Washington, DC  
On behalf of**

**Avesta Sheffield, Inc.  
Cogne S.p.A.  
Acciaieri di Bolzano S.p.A.  
Acciaieri Valbruna S.r.L**

**William Silverman )--OF COUNSEL**

**Klayman & Associates  
Washington, DC  
On behalf of**

**Grand Foundry Limited  
Trefilarbed, Inc.**

**Kiran Jangla, Managing Director, Grand Foundry Limited  
Ashwin Gupta, Managing Director, ISIBARS Limited  
Bernard Goodry, Trefilarbed, Inc.**

**Larry Klayman )--OF COUNSEL**

**O'Melveny & Myers  
Washington, DC  
On behalf of**

**Gulf & Northern Trading Corp.  
Mukand, Ltd.**

**Craig L. McKee )--OF COUNSEL  
Gary N. Horlick**



**APPENDIX C**  
**SUMMARY DATA**



Table C-1

Stainless steel bar: Summary data concerning the U.S. market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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	Jan.-Sept.--		1990-92	1990-91	1991-92	Jan.-Sept. 1992-93
				1992	1993				
<b>U.S. consumption quantity:</b>									
Amount.....	160,487	180,221	180,258	134,219	156,113	+12.3	+12.3	( <sup>1</sup> )	+16.3
Producers' share <sup>2</sup> .....	77.7	75.0	74.1	75.6	71.6	-3.6	-2.7	-0.9	-4.0
Importers' share: <sup>2</sup>									
Brazil.....	1.6	1.8	2.3	2.2	2.5	+0.8	+0.3	+0.5	+0.3
India.....	.7	.8	1.2	1.0	2.3	+0.5	+0.1	+0.4	+1.2
Italy.....	.7	1.6	1.3	.9	2.7	+0.6	+0.9	-0.3	+1.8
Japan.....	8.0	8.7	8.1	7.8	7.4	( <sup>3</sup> )	+0.7	-0.6	-0.4
Spain.....	2.5	3.1	3.1	3.0	3.4	+0.7	+0.7	( <sup>2</sup> )	+0.4
Subtotal.....	13.4	16.0	16.0	14.9	18.3	+2.7	+2.6	( <sup>3</sup> )	+3.4
Other sources.....	8.9	9.0	9.9	9.4	10.0	+0.9	+0.1	+0.9	+0.6
Total.....	22.3	25.0	25.9	24.4	28.4	+3.6	+2.7	+0.9	+4.0
<b>U.S. consumption value:</b>									
Amount.....	550,960	607,886	558,482	431,568	453,046	+1.4	+10.3	-8.1	+5.0
Producers' share <sup>2</sup> .....	80.4	78.5	78.1	79.9	76.3	-2.3	-1.9	-0.4	-3.6
Importers' share: <sup>2</sup>									
Brazil.....	1.2	1.4	1.7	1.6	1.7	+0.5	+0.2	+0.3	+0.1
India.....	.5	.6	.9	.8	1.7	+0.4	( <sup>3</sup> )	+0.3	+0.9
Italy.....	.5	1.5	1.1	.8	2.4	+0.6	+0.9	-0.4	+1.6
Japan.....	7.4	7.4	6.8	6.4	6.6	-0.6	( <sup>3</sup> )	-0.6	+0.2
Spain.....	2.1	2.6	2.5	2.3	2.9	+0.4	+0.5	-0.1	+0.6
Subtotal.....	11.8	13.4	13.0	11.9	15.3	+1.2	+1.6	-0.4	+3.4
Other sources.....	7.7	8.1	8.8	8.3	8.4	+1.1	+0.3	+0.8	+0.1
Total.....	19.6	21.5	21.9	20.1	23.7	+2.3	+1.9	+0.4	+3.6
<b>U.S. importers' imports from--</b>									
<b>Brazil:</b>									
Imports quantity.....	2,493	3,334	4,209	2,985	3,888	+68.8	+33.7	+26.2	+30.3
Imports value.....	6,780	8,529	9,697	7,105	7,915	+43.0	+25.8	+13.7	+11.4
Unit value.....	\$2,720	\$2,558	\$2,304	\$2,380	\$2,036	-15.3	-5.9	-10.0	-14.5
Ending inventory qty.....	780	1,190	1,235	1,068	1,097	+58.3	+52.6	+3.8	+2.7
<b>India:</b>									
Imports quantity.....	1,084	1,402	2,186	1,371	3,532	+101.7	+29.3	+55.9	+157.6
Imports value.....	3,024	3,607	5,220	3,294	7,628	+72.6	+19.3	+44.7	+131.6
Unit value.....	\$2,789	\$2,574	\$2,388	\$2,403	\$2,159	-14.4	-7.7	-7.2	-10.1
Ending inventory qty.....	***	***	576	387	1,171	***	+7.3	***	+202.6
<b>Italy:</b>									
Imports quantity.....	1,066	2,831	2,351	1,174	4,242	+120.5	+165.6	-17.0	+261.3
Imports value.....	2,968	8,942	6,110	3,259	10,689	+105.9	+201.3	-31.7	+228.0
Unit value.....	\$2,784	\$3,159	\$2,599	\$2,775	\$2,520	-6.6	+13.5	-17.7	-9.2
Ending inventory qty.....	334	***	***	666	***	***	***	+67.9	***
<b>Japan:</b>									
Imports quantity.....	12,846	15,621	14,511	10,482	11,601	+13.0	+21.6	-7.1	+10.7
Imports value.....	40,560	44,811	37,791	27,581	29,953	-6.8	+10.5	-15.7	+8.6
Unit value.....	\$3,157	\$2,869	\$2,604	\$2,631	\$2,582	-17.5	-9.1	-9.2	-1.9
Ending inventory qty.....	***	***	***	***	***	+1.0	+7.1	-5.6	+5.0
<b>Spain:</b>									
Imports quantity.....	3,951	5,626	5,645	4,046	5,380	+42.9	+42.4	+0.3	+33.0
Imports value.....	11,811	15,844	13,989	9,995	13,034	+18.0	+34.1	-12.0	+30.4
Unit value.....	\$2,989	\$2,816	\$2,469	\$2,470	\$2,423	-17.4	-5.8	-12.3	-1.9
Ending inventory qty.....	***	***	***	***	***	***	***	***	***
<b>Subject sources:</b>									
Imports quantity.....	21,441	28,814	28,901	20,058	28,643	+34.8	+34.4	+0.3	+42.8
Imports value.....	65,143	81,734	72,756	51,233	69,219	+11.7	+25.5	-11.0	+35.1
Unit value.....	\$3,038	\$2,837	\$2,517	\$2,554	\$2,417	-17.1	-6.6	-11.3	-5.4
Ending inventory qty.....	5,410	6,557	6,991	5,691	7,649	+29.2	+21.2	+6.6	+34.4
<b>Other sources:</b>									
Imports quantity.....	14,341	16,196	17,818	12,666	15,671	+24.2	+12.9	+10.0	+23.7
Imports value.....	42,650	48,935	49,309	35,668	38,117	+15.6	+14.7	+0.8	+6.9
Unit value.....	\$2,974	\$3,021	\$2,767	\$2,816	\$2,432	-6.9	+1.6	-8.4	-13.6
Ending inventory qty.....	2,735	3,121	***	***	***	***	+14.1	***	+2.7
<b>All sources:</b>									
Imports quantity.....	35,782	45,010	46,719	32,725	44,314	+30.6	+25.8	+3.8	+35.4
Imports value.....	107,793	130,669	122,065	86,902	107,336	+13.2	+21.2	-6.6	+23.5
Unit value.....	\$3,012	\$2,903	\$2,613	\$2,656	\$2,422	-13.3	-3.6	-10.0	-8.8

Table continued on next page.

Table C-1--Continued

Stainless steel bar: Summary data concerning the U.S. market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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	Jan.-Sept.--		1990-92	1990-91	1991-92	Jan.-Sept. 1992-93
				1992	1993				
<b>U.S. producers'--</b>									
Average capacity quantity..	263,363	296,003	292,503	226,397	223,064	+11.1	+12.4	-1.2	-1.5
Production quantity.....	135,826	145,680	148,399	116,582	122,786	+9.3	+7.3	+1.9	+5.3
Capacity utilisation <sup>1</sup> .....	52.4	49.1	50.6	53.5	57.0	-1.7	-3.2	+1.5	+3.5
<b>U.S. shipments:</b>									
Quantity.....	124,705	135,211	133,539	101,494	111,799	+7.1	+8.4	-1.2	+10.2
Value.....	443,167	477,217	436,417	344,666	345,710	-1.5	+7.7	-8.5	+0.3
Unit value.....	\$3,554	\$3,529	\$3,268	\$3,396	\$3,092	-8.0	-0.7	-7.4	-8.9
<b>Export shipments:</b>									
Quantity.....	***	***	354	245	519	***	+84.1	***	+111.8
Exports/shipments <sup>2</sup> .....	***	***	0.3	0.2	0.5	***	+0.2	***	+0.2
Value.....	2,354	3,738	2,122	1,601	2,458	-9.9	+58.8	-43.2	+53.5
Unit value.....	\$***	\$***	\$5,994	\$6,535	\$4,736	***	-13.7	***	-27.5
Ending inventory quantity..	28,197	25,447	27,660	24,798	27,212	-1.9	-9.8	+8.7	+9.7
Inventory/shipments <sup>2</sup> .....	21.0	19.0	20.9	18.3	18.2	-0.1	-2.0	+1.9	-0.1
Production workers.....	2,013	2,128	2,017	1,954	2,049	+0.2	+5.7	-5.2	+4.9
Hours worked (1,000s).....	4,243	4,255	4,138	3,105	3,265	-2.5	+0.3	-2.7	+5.2
Total comp. (\$1,000).....	98,954	104,028	103,650	77,925	86,047	+4.7	+5.1	-0.4	+10.4
Hourly total compensation..	\$23.32	\$24.45	\$25.05	\$25.10	\$26.35	+7.4	+4.8	+2.5	+5.0
<b>Productivity (tons/1,000 hours):</b>									
Unit labor costs.....	\$742.75	\$785.70	\$763.78	\$725.32	\$731.77	+2.8	+5.8	-2.8	+0.9
<b>Net sales--</b>									
Quantity.....	122,355	133,790	134,308	101,153	111,814	+9.8	+9.3	+0.4	+10.5
Value.....	442,195	478,341	454,056	343,064	345,975	+2.7	+8.2	-5.1	+0.8
Cost of goods sold (COGS)..	388,169	439,556	436,802	330,916	324,112	+12.5	+13.2	-0.6	-2.1
Gross profit (loss).....	54,026	38,785	17,254	12,148	21,863	-68.1	-28.2	-55.5	+80.0
SG&A expenses.....	28,198	34,260	39,642	26,681	27,528	+40.6	+21.5	+15.7	+3.2
Operating income (loss)....	25,828	4,525	(22,388)	(14,533)	(5,665)	-186.7	-82.5	-594.8	+61.0
Capital expenditures.....	32,587	27,019	15,188	15,921	9,689	-53.4	-17.1	-43.8	-39.1
Unit COGS.....	\$3,110	\$3,225	\$3,188	\$3,259	\$2,890	+2.5	+3.7	-1.1	-11.3
COGS/sales <sup>2</sup> .....	87.8	91.9	96.2	96.5	93.7	+8.4	+4.1	+4.3	-2.8
Op.income (loss)/sales <sup>2</sup> ....	5.8	0.9	(4.9)	(4.2)	(1.6)	-10.8	-4.9	-5.9	+2.6

<sup>1</sup> An increase of less than 0.05 percent.<sup>2</sup> 'Reported data' are in percent and 'period changes' are in percentage-point.<sup>3</sup> An increase of less than 0.05 percentage points.

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. Unit values and other ratios are calculated from the unrounded figures, using data of firms supplying both numerator and denominator information. Part-year inventory ratios are annualized.

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

Table C-2

Hot-rolled stainless steel bar: Summary data concerning the U.S. market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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			Jan.-Sept.--		Period changes			Jan.-Sept.
	1990	1991	1992	1992	1993	1990-92	1990-91	1991-92	1992-93
<b>U.S. consumption quantity:</b>									
Amount.....	158,377	159,912	156,125	119,797	140,804	-1.4	+1.0	-2.4	+17.5
Producers' share.....	94.2	92.9	93.4	94.2	90.9	-0.8	-1.3	+0.5	-3.3
<b>Importers' share:<sup>1</sup></b>									
Brazil.....	0.4	0.9	1.0	1.0	1.1	+0.6	+0.5	+0.1	+0.1
India.....	( <sup>2</sup> )	.1	.1	.1	.5	+0.1	( <sup>2</sup> )	( <sup>2</sup> )	+0.5
Italy.....	( <sup>2</sup> )	.4	.2	( <sup>2</sup> )	1.0	+0.2	+0.4	-0.2	+1.0
Japan.....	2.4	3.3	2.7	2.2	2.5	+0.3	+0.9	-0.6	+0.3
Spain.....	.2	.3	.1	.1	.1	-0.1	+0.1	-0.2	( <sup>2</sup> )
Subtotal.....	3.0	5.0	4.0	3.4	5.3	+1.1	+2.0	-0.9	+1.8
Other sources.....	2.8	2.1	2.6	2.4	3.8	-0.2	-0.7	+0.5	+1.5
Total.....	5.8	7.1	6.6	5.8	9.1	+0.8	+1.3	-0.5	+3.3
<b>U.S. consumption value:</b>									
Amount.....	297,338	309,049	287,063	220,295	244,595	-3.5	+3.9	-7.1	+11.0
Producers' share.....	90.9	89.4	91.0	91.9	88.1	( <sup>2</sup> )	-1.5	+1.6	-3.9
<b>Importers' share:<sup>1</sup></b>									
Brazil.....	0.5	1.3	1.2	1.2	1.3	+0.6	+0.7	-0.1	+0.1
India.....	( <sup>2</sup> )	.1	.1	.1	.7	+0.1	( <sup>2</sup> )	( <sup>2</sup> )	+0.5
Italy.....	( <sup>2</sup> )	.6	.3	( <sup>2</sup> )	1.6	+0.3	+0.6	-0.4	+1.6
Japan.....	3.9	5.0	3.6	3.1	3.8	-0.3	+1.1	-1.4	+0.7
Spain.....	.2	.4	.1	.1	.1	-0.1	+0.1	-0.2	( <sup>2</sup> )
Subtotal.....	4.7	7.3	5.3	4.6	7.5	+0.6	+2.6	-2.0	+2.9
Other sources.....	4.4	3.3	3.8	3.5	4.4	-0.6	-1.1	+0.4	+1.0
Total.....	9.1	10.6	9.0	8.1	11.9	( <sup>2</sup> )	+1.5	-1.6	+3.9
<b>U.S. importers' imports from--</b>									
<b>Brazil:</b>									
Imports quantity.....	603	1,430	1,520	1,192	1,543	+152.1	+137.1	+6.3	+29.4
Imports value.....	1,569	3,899	3,379	2,663	3,209	+115.4	+148.5	-13.3	+20.5
Unit value.....	\$2,602	\$2,726	\$2,223	\$2,234	\$2,080	-14.6	+4.8	-18.4	-6.9
Ending inventory qty.....	***	***	***	***	***	***	***	***	***
<b>India:</b>									
Imports quantity.....	42	105	127	105	759	+202.4	+150.0	+21.0	+622.9
Imports value.....	123	266	329	277	1,633	+167.5	+116.3	+23.7	+489.5
Unit value.....	\$2,965	\$2,535	\$2,596	\$2,624	\$2,151	-12.5	-14.5	+2.4	-18.0
Ending inventory qty.....	***	***	***	***	***	***	***	***	***
<b>Italy:</b>									
Imports quantity.....	13	706	325	17	1,448	( <sup>2</sup> )	( <sup>2</sup> )	-54.0	( <sup>2</sup> )
Imports value.....	41	2,000	830	68	4,006	( <sup>2</sup> )	( <sup>2</sup> )	-58.5	( <sup>2</sup> )
Unit value.....	\$3,183	\$2,832	\$2,552	\$4,112	\$2,767	-19.8	-11.0	-9.9	-32.7
Ending inventory qty.....	***	***	***	***	***	***	***	***	***
<b>Japan:</b>									
Imports quantity.....	3,795	5,273	4,180	2,695	3,553	+10.1	+38.9	-20.7	+31.8
Imports value.....	11,588	15,305	10,296	6,857	9,293	-11.1	+32.1	-32.7	+35.5
Unit value.....	\$3,054	\$2,902	\$2,463	\$2,544	\$2,616	-19.3	-5.0	-15.1	+2.8
Ending inventory qty.....	***	***	***	***	***	+24.2	+51.9	-18.2	-8.9
<b>Spain:</b>									
Imports quantity.....	240	417	122	101	101	-49.2	+73.8	-70.7	0
Imports value.....	701	1,129	333	277	266	-52.5	+61.1	-70.5	-4.0
Unit value.....	\$2,926	\$2,705	\$2,720	\$2,738	\$2,651	-7.0	-7.5	+0.5	-3.2
Ending inventory qty.....	***	***	***	***	***	***	***	***	***
<b>Subject sources:</b>									
Imports quantity.....	4,692	7,933	6,274	4,111	7,403	+33.7	+69.1	-20.9	+80.1
Imports value.....	14,022	22,600	15,166	10,141	18,407	+8.2	+61.2	-32.9	+81.5
Unit value.....	\$2,989	\$2,849	\$2,417	\$2,467	\$2,487	-19.1	-4.7	-15.2	+0.8
Ending inventory qty.....	***	***	***	***	***	+20.6	+57.2	-23.3	-20.0
<b>Other sources:</b>									
Imports quantity.....	4,494	3,420	4,071	2,830	5,409	-9.4	-23.9	+19.0	+91.1
Imports value.....	12,983	10,247	10,808	7,603	10,821	-16.8	-21.1	+5.5	+42.3
Unit value.....	\$2,889	\$2,996	\$2,655	\$2,687	\$2,001	-8.1	+3.7	-11.4	-25.5
Ending inventory qty.....	***	***	***	***	***	( <sup>2</sup> )	( <sup>2</sup> )	+60.3	-9.8
<b>All sources:</b>									
Imports quantity.....	9,186	11,352	10,345	6,940	12,812	+12.6	+23.6	-8.9	+84.6
Imports value.....	27,006	32,847	25,974	17,744	29,229	-3.8	+21.6	-20.9	+64.7
Unit value.....	\$2,940	\$2,893	\$2,511	\$2,557	\$2,281	-14.6	-1.6	-13.2	-10.8

Table continued on next page.

Table C-2--Continued

Hot-rolled stainless steel bar: Summary data concerning the U.S. market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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	Jan.-Sept.-- 1992 1993		1990-92	1990-91	1991-92	Jan.-Sept. 1992-93
U.S. producers'--									
Average capacity quantity..	265,158	265,158	265,158	210,805	210,805	0	0	0	0
Production quantity.....	149,358	148,205	146,045	113,194	128,420	-2.2	-0.8	-1.5	+13.5
Capacity utilization <sup>1</sup> .....	56.3	55.9	55.1	53.7	60.9	-1.2	-0.4	-0.8	+7.2
U.S. shipments:									
Quantity.....	149,191	148,560	145,780	112,857	127,992	-2.3	-0.4	-1.9	+13.4
Value.....	270,332	276,202	261,089	202,551	215,366	-3.4	+2.2	-5.5	+6.3
Unit value.....	\$1,812	\$1,859	\$1,791	\$1,795	\$1,683	-1.2	+2.6	-3.7	-6.2
Export shipments:									
Quantity.....	***	***	***	***	***	***	***	***	***
Exports/shipments <sup>1</sup> .....	( <sup>2</sup> )	( <sup>3</sup> )	( <sup>2</sup> )	( <sup>3</sup> )	( <sup>2</sup> )	( <sup>4</sup> )	( <sup>3</sup> )	( <sup>4</sup> )	( <sup>4</sup> )
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Ending inventory quantity..	***	***	***	***	***	***	***	***	***
Inventory/shipments <sup>1</sup> .....	***	***	***	***	***	( <sup>5</sup> )	***	***	( <sup>3</sup> )
Production workers.....	220	229	233	228	264	+5.9	+4.1	+1.7	+15.8
Hours worked (1,000s).....	449	443	458	351	399	+2.0	-1.3	+3.4	+13.7
Total comp. (\$1,000).....	9,443	9,450	10,422	8,041	8,878	+10.4	+0.1	+10.3	+10.4
Hourly total compensation..	\$21.03	\$21.33	\$22.76	\$22.91	\$22.25	+8.2	+1.4	+6.7	-2.9
Productivity (tons/1,000 hours).....	256.2	257.2	254.6	256.7	249.5	-0.6	+0.4	-1.0	-2.8
Unit labor costs.....	\$82.08	\$82.94	\$89.37	\$89.25	\$89.17	+8.9	+1.0	+7.8	-0.1
Net sales--									
Quantity.....	68,101	69,639	77,253	56,767	69,638	+13.4	+2.3	+10.9	+22.7
Value.....	152,719	162,884	177,102	32,092	147,621	+16.0	+6.7	+8.7	+11.8
Cost of goods sold (COGS)..	152,719	162,884	177,102	32,092	147,621	+16.0	+6.7	+8.7	+11.8
Gross profit (loss).....	0	0	0	0	0	0	0	0	0
SG&A expenses.....	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
Operating income (loss)....	0	0	0	0	0	0	0	0	0
Capital expenditures.....	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )
Unit COGS.....	\$2,243	\$2,339	\$2,292	\$2,327	\$2,120	+2.2	+4.3	-2.0	-8.9
COGS/sales <sup>1</sup> .....	100.0	100.0	100.0	100.0	100.0	0	0	0	0
Op.income (loss)/sales <sup>1</sup> ....	0	0	0	0	0	0	0	0	0

<sup>1</sup> 'Reported data' are in percent and 'period changes' are in percentage-point.<sup>2</sup> Positive figure, but less than significant digits displayed.<sup>3</sup> An increase of less than 0.05 percentage points.<sup>4</sup> A decrease of less than 0.05 percentage points.<sup>5</sup> An increase of 1,000 percent or more.<sup>6</sup> Not available.

Note.--Period changes are derived from the unrounded data. Because of rounding, figures may not add to the totals shown. Unit values and other ratios are calculated from the unrounded figures, using data of firms supplying both numerator and denominator information. Part-year inventory ratios are annualized.

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

Table C-3

Cold-formed stainless steel bar: Summary data concerning the U.S. market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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	Jan.-Sept. --		1990-92	1990-91	1991-92	Jan.-Sept.
	1990	1991	1992	1992	1993	1990-92	1990-91	1991-92	1992-93		
<b>U.S. consumption quantity:</b>											
Amount.....	148,405	153,837	155,055	116,351	135,084	+4.5	+3.7	+0.8	+16.1		
Producers' share <sup>1</sup> .....	83.8	79.8	78.9	80.1	79.6	-4.9	-4.0	-0.9	-0.5		
Importers' share: <sup>1</sup>											
Brazil.....	1.1	1.0	1.4	1.2	1.6	+0.3	-0.1	+0.3	+0.4		
India.....	.4	.7	.9	.7	1.4	+0.5	+0.3	+0.2	+0.7		
Italy.....	.7	1.4	1.3	1.0	2.1	+0.6	+0.7	-0.1	+1.1		
Japan.....	5.7	6.4	6.5	6.5	5.6	+0.7	+0.7	(*)	-0.9		
Spain.....	2.5	3.4	3.4	3.3	3.3	+0.9	+0.9	(*)	(*)		
Subtotal.....	10.5	12.9	13.4	12.7	13.9	+3.0	+2.4	+0.5	+1.2		
Other sources.....	5.7	7.3	7.7	7.2	6.5	+2.0	+1.6	+0.4	-0.7		
Total.....	16.2	20.2	21.1	19.9	20.4	+4.9	+4.0	+0.9	+0.5		
<b>U.S. consumption value:</b>											
Amount.....	512,314	518,535	480,902	375,686	398,707	-6.1	+1.2	-7.3	+6.1		
Producers' share <sup>1</sup> .....	85.8	82.6	82.2	83.6	83.0	-3.6	-3.1	-0.4	-0.6		
Importers' share: <sup>1</sup>											
Brazil.....	0.9	0.8	1.0	0.9	1.1	+0.1	-0.1	+0.3	+0.2		
India.....	.3	.5	.7	.5	1.0	+0.3	+0.2	+0.1	+0.5		
Italy.....	.6	1.3	1.1	.8	1.7	+0.5	+0.7	-0.2	+0.8		
Japan.....	5.3	5.4	5.5	5.3	4.8	+0.2	+0.1	+0.1	-0.5		
Spain.....	2.2	2.8	2.7	2.5	2.7	+0.5	+0.7	-0.1	+0.2		
Subtotal.....	9.3	10.9	11.0	10.1	11.2	+1.7	+1.6	+0.1	+1.2		
Other sources.....	4.9	6.5	6.8	6.3	5.8	+1.9	+1.6	+0.3	-0.6		
Total.....	14.2	17.4	17.8	16.4	17.0	+3.6	+3.1	+0.4	+0.6		
<b>U.S. importers' imports from--</b>											
<b>Brazil:</b>											
Imports quantity.....	1,683	1,606	2,154	1,419	2,136	+28.0	-4.6	+34.1	+50.5		
Imports value.....	4,602	3,924	4,851	3,334	4,188	+5.4	-14.7	+23.6	+25.6		
Unit value.....	\$2,734	\$2,443	\$2,253	\$2,349	\$1,961	-17.6	-10.6	-7.8	-16.5		
Ending inventory qty.....	696	919	1,058	831	1,079	+52.0	+32.0	+15.1	+29.8		
<b>India:</b>											
Imports quantity.....	584	1,074	1,379	799	1,877	+136.1	+83.9	+28.4	+134.9		
Imports value.....	1,593	2,773	3,139	1,802	3,879	+97.0	+74.1	+13.2	+115.3		
Unit value.....	\$2,727	\$2,582	\$2,276	\$2,257	\$2,066	-16.5	-5.3	-11.8	-8.4		
Ending inventory qty.....	***	***	576	387	1,171	***	+7.3	***	+202.6		
<b>Italy:</b>											
Imports quantity.....	1,053	2,095	2,016	1,149	2,793	+91.5	+99.0	-3.8	+143.1		
Imports value.....	2,928	6,843	5,248	3,172	6,677	+79.2	+133.7	-23.3	+110.5		
Unit value.....	\$2,779	\$3,266	\$2,603	\$2,761	\$2,391	-6.3	+17.5	-20.3	-13.4		
Ending inventory qty.....	333	***	***	***	***	***	***	+68.6	+144.2		
<b>Japan:</b>											
Imports quantity.....	8,530	9,883	10,034	7,534	7,537	+17.6	+15.9	+1.5	(*)		
Imports value.....	27,364	28,153	26,618	20,009	19,307	-2.7	+2.9	-5.5	-3.5		
Unit value.....	\$3,208	\$2,848	\$2,653	\$2,656	\$2,562	-17.3	-11.2	-6.9	-3.5		
Ending inventory qty.....	***	***	***	***	***	-6.4	-4.3	-2.2	+9.7		
<b>Spain:</b>											
Imports quantity.....	3,711	5,209	5,255	3,827	4,442	+41.6	+40.4	+0.9	+16.1		
Imports value.....	11,110	14,715	13,021	9,505	10,791	+17.2	+32.4	-11.5	+13.5		
Unit value.....	\$2,993	\$2,825	\$2,478	\$2,484	\$2,429	-17.2	-5.6	-12.3	-2.2		
Ending inventory qty.....	***	***	***	***	***	***	***	***	***		
<b>Subject sources:</b>											
Imports quantity.....	15,562	19,867	20,838	14,728	18,785	+33.9	+27.7	+4.9	+27.5		
Imports value.....	47,597	56,407	52,877	37,823	44,842	+11.1	+18.5	-6.3	+18.6		
Unit value.....	\$3,058	\$2,839	\$2,537	\$2,568	\$2,387	-17.0	-7.2	-10.6	-7.0		
Ending inventory qty.....	4,602	5,165	5,856	4,547	6,801	+27.2	+12.2	+13.4	+49.6		
<b>Other sources:</b>											
Imports quantity.....	8,438	11,194	11,862	8,435	8,830	+40.6	+32.7	+6.0	+4.7		
Imports value.....	25,280	33,677	32,674	23,724	22,966	+29.2	+33.2	-3.0	-3.2		
Unit value.....	\$2,996	\$3,009	\$2,754	\$2,813	\$2,601	-8.1	+0.4	-8.4	-7.5		
Ending inventory qty.....	***	***	***	***	***	+29.9	+27.6	+1.8	+20.7		
<b>All sources:</b>											
Imports quantity.....	24,000	31,061	32,701	23,163	27,615	+36.3	+29.4	+5.3	+19.2		
Imports value.....	72,877	90,084	85,550	61,546	67,808	+17.4	+23.6	-5.0	+10.2		
Unit value.....	\$3,036	\$2,900	\$2,616	\$2,657	\$2,455	-13.8	-4.5	-9.8	-7.6		

Table continued on next page.

Table C-3--Continued

Cold-formed stainless steel bar: Summary data concerning the U.S. market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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			Jan.-Sept.--		Period changes			Jan.-Sept.
	1990	1991	1992	1992	1993	1990-92	1990-91	1991-92	1992-93
U.S. producers'--									
Average capacity quantity..	234,855	234,855	231,355	180,561	179,478	-1.5	0	-1.5	-0.6
Production quantity.....	129,847	129,077	132,789	104,592	114,271	+2.3	-0.6	+2.9	+9.3
Capacity utilization <sup>1</sup> .....	56.2	54.9	57.3	60.8	66.7	+1.0	-1.4	+2.4	+5.8
U.S. shipments:									
Quantity.....	124,405	122,776	122,354	93,188	107,469	-1.6	-1.3	-0.3	+15.3
Value.....	439,437	428,451	395,352	314,140	330,899	-10.0	-2.5	-7.7	+5.3
Unit value.....	\$3,532	\$3,490	\$3,231	\$3,371	\$3,079	-8.5	-1.2	-7.4	-8.7
Export shipments:									
Quantity.....	***	***	348	241	515	***	+83.1	***	+113.7
Exports/shipments <sup>1</sup> .....	***	***	0.3	0.3	0.5	***	+0.3	***	+0.2
Value.....	***	***	2,009	***	2,387	***	+58.8	***	***
Unit value.....	\$4,984	\$4,315	\$5,756	\$***	\$4,621	+15.5	-13.4	+33.4	***
Ending inventory quantity..	24,050	23,082	25,330	22,413	25,051	+5.3	-4.0	+9.7	+11.8
Inventory/shipments <sup>1</sup> .....	19.6	19.0	20.9	18.0	17.4	+1.3	-0.6	+1.9	-0.6
Production workers.....	1,635	1,651	1,551	1,576	1,585	-5.1	+1.0	-6.1	+0.6
Hours worked (1,000s).....	3,386	3,338	3,160	2,473	2,495	-6.7	-1.4	-5.3	+0.9
Total comp. (\$1,000).....	\$3,838	\$6,181	\$4,276	\$4,816	\$9,739	+0.5	+2.8	-2.2	+7.6
Hourly total compensation..	\$24.76	\$25.82	\$26.67	\$26.21	\$27.95	+7.7	+4.3	+3.3	+6.6
Productivity (tons/1,000 hours):									
hours.....	34.6	34.7	37.8	38.8	40.3	+9.2	+0.4	+8.8	+3.9
Unit labor costs.....	\$715.68	\$743.59	\$705.89	\$676.29	\$694.37	-1.4	+3.9	-5.1	+2.7
Net sales--									
Quantity.....	60,723	59,955	67,009	48,431	58,619	+10.4	-1.3	+11.8	+21.0
Value.....	231,591	223,009	239,341	180,309	193,500	+3.3	-3.7	+7.3	+7.3
Cost of goods sold (COGS)...	184,000	178,372	192,651	141,314	159,762	+4.7	-3.0	+7.9	+13.1
Gross profit (loss).....	47,591	44,437	46,690	38,995	33,738	-1.9	-6.6	+5.1	-13.5
SG&A expenses.....	19,567	22,326	26,014	17,068	19,559	+32.9	+15.1	+15.5	+14.6
Operating income (loss)....	28,024	21,911	20,676	21,927	14,179	-26.2	-21.8	-5.6	-35.3
Capital expenditures.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Unit COGS.....	\$3,030	\$2,978	\$2,875	\$2,918	\$2,725	-5.1	-1.7	-3.5	-6.6
COGS/sales <sup>1</sup> .....	79.5	80.1	80.5	78.4	82.6	+1.0	+0.6	+0.4	+4.2
Op.income (loss)/sales <sup>1</sup> ....	12.1	9.8	8.6	12.2	7.3	-3.5	-2.3	-1.2	-4.8

<sup>1</sup> 'Reported data' are in percent and 'period changes' are in percentage-point.<sup>2</sup> An increase of less than 0.05 percentage points.<sup>3</sup> A decrease of less than 0.05 percent.<sup>4</sup> An increase of less than 0.05 percent.<sup>5</sup> Not available.

Note.--Period changes are derived from the unrounded data. Because of rounding, figures may not add to the totals shown. Unit values and other ratios are calculated from the unrounded figures, using data of firms supplying both numerator and denominator information. Part-year inventory ratios are annualized.

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

Table C-4

Stainless steel bar: Summary data concerning the U.S. open market<sup>1</sup>, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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	Jan.-Sept. 1992	Jan.-Sept. 1993	1990-92	1990-91	1991-92	Jan.-Sept. 1992-93
<b>U.S. open-market consumption quantity:</b>									
Amount.....	***	***	***	***	***	+15.8	+17.3	-1.3	+22.2
Producers' share <sup>2</sup> .....	***	***	***	***	***	-3.9	-2.2	-1.7	-3.6
Importers' share: <sup>2</sup>									
Brazil.....	***	***	***	***	***	+1.0	+0.3	+0.7	+0.2
India.....	***	***	***	***	***	+0.7	+0.1	+0.6	+1.5
Italy.....	***	***	***	***	***	+0.8	+1.2	-0.3	+2.3
Japan.....	***	***	***	***	***	-0.3	+0.4	-0.7	-1.0
Spain.....	***	***	***	***	***	+0.8	+0.7	+0.1	+0.4
Subtotal.....	***	***	***	***	***	+3.0	+2.7	+0.3	+3.4
Other sources.....	***	***	***	***	***	+0.9	-0.5	+1.4	+0.2
Total.....	***	***	***	***	***	+3.9	+2.2	+1.7	+3.6
<b>U.S. open-market consumption value:</b>									
Amount.....	***	***	***	***	***	+4.3	+15.7	-9.9	+10.0
Producers' share <sup>2</sup> .....	***	***	***	***	***	-2.4	-1.3	-1.1	-3.5
Importers' share: <sup>2</sup>									
Brazil.....	***	***	***	***	***	+0.7	+0.2	+0.5	( <sup>3</sup> )
India.....	***	***	***	***	***	+0.5	( <sup>3</sup> )	+0.5	+1.2
Italy.....	***	***	***	***	***	+0.7	+1.2	-0.5	+2.1
Japan.....	***	***	***	***	***	-1.1	-0.5	-0.6	-0.1
Spain.....	***	***	***	***	***	+0.4	+0.5	-0.1	+0.6
Subtotal.....	***	***	***	***	***	+1.2	+1.4	-0.2	+3.9
Other sources.....	***	***	***	***	***	+1.2	-0.1	+1.3	-0.3
Total.....	***	***	***	***	***	+2.4	+1.3	+1.1	+3.5
<b>U.S. importers' imports from:</b>									
<b>Brazil:</b>									
Imports quantity.....	2,493	3,334	4,209	2,985	3,888	+68.8	+33.7	+26.2	+30.3
Imports value.....	6,780	8,529	9,697	7,105	7,915	+43.0	+25.8	+13.7	+11.4
Unit value.....	\$2,720	\$2,558	\$2,304	\$2,380	\$2,036	-15.3	-5.9	-10.0	-14.5
Ending inventory qty.....	780	1,190	1,235	1,068	1,097	+58.3	+52.6	+3.8	+2.7
<b>India:</b>									
Imports quantity.....	1,084	1,402	2,186	1,371	3,532	+101.7	+29.3	+55.9	+157.6
Imports value.....	3,024	3,607	5,220	3,294	7,628	+72.6	+19.3	+44.7	+131.6
Unit value.....	\$2,789	\$2,574	\$2,388	\$2,403	\$2,159	-14.4	-7.7	-7.2	-10.1
Ending inventory qty.....	***	***	576	387	1,171	***	+7.3	***	+202.6
<b>Italy:</b>									
Imports quantity.....	1,066	2,831	2,351	1,174	4,242	+120.5	+165.6	-17.0	+261.3
Imports value.....	2,968	8,942	6,110	3,259	10,689	+105.9	+201.3	-31.7	+228.0
Unit value.....	\$2,784	\$3,159	\$2,599	\$2,775	\$2,520	-6.6	+13.5	-17.7	-9.2
Ending inventory qty.....	334	***	***	666	***	***	***	+67.9	***
<b>Japan:</b>									
Imports quantity.....	12,846	15,621	14,511	10,482	11,601	+13.0	+21.6	-7.1	+10.7
Imports value.....	40,560	44,811	37,791	27,581	29,953	-6.8	+10.5	-15.7	+8.6
Unit value.....	\$3,157	\$2,869	\$2,604	\$2,631	\$2,582	-17.5	-9.1	-9.2	-1.9
Ending inventory qty.....	***	***	***	***	***	+1.0	+7.1	-5.6	+5.0
<b>Spain:</b>									
Imports quantity.....	3,951	5,626	5,645	4,046	5,380	+42.9	+42.4	+0.3	+33.0
Imports value.....	11,811	15,844	13,939	9,995	13,034	+18.0	+34.1	-12.0	+30.4
Unit value.....	\$2,989	\$2,816	\$2,469	\$2,470	\$2,423	-17.4	-5.8	-12.3	-1.9
Ending inventory qty.....	***	***	***	***	***	***	***	***	***
<b>Subject sources:</b>									
Imports quantity.....	21,441	28,814	28,901	20,058	28,643	+34.8	+34.4	+0.3	+42.8
Imports value.....	65,143	81,734	72,756	51,233	69,219	+11.7	+25.5	-11.0	+35.1
Unit value.....	\$3,038	\$2,837	\$2,517	\$2,554	\$2,417	-17.1	-6.6	-11.3	-5.4
Ending inventory qty.....	5,410	6,557	6,991	5,691	7,649	+29.2	+21.2	+6.6	+34.4
<b>Other sources:</b>									
Imports quantity.....	14,341	16,196	17,818	12,666	15,671	+24.2	+12.9	+10.0	+23.7
Imports value.....	42,650	48,935	49,309	35,668	38,117	+15.6	+14.7	+0.8	+6.9
Unit value.....	\$2,974	\$3,021	\$2,767	\$2,816	\$2,432	-6.9	+1.6	-8.4	-13.6
Ending inventory qty.....	2,735	3,121	***	***	***	***	+14.1	***	+2.7
<b>All sources:</b>									
Imports quantity.....	35,782	45,010	46,719	32,725	44,314	+30.6	+25.8	+3.8	+35.4
Imports value.....	107,793	130,669	122,065	86,902	107,336	+13.2	+21.2	-6.6	+23.5
Unit value.....	\$3,012	\$2,903	\$2,613	\$2,656	\$2,422	-13.3	-3.6	-10.0	-8.8

Table continued on next page.

Table C-4--Continued

Stainless steel bar: Summary data concerning the U.S. open market<sup>1</sup>, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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			Jan.-Sept.--		Period changes				
	1990	1991	1992	1992	1993	1990-92	1990-91	1991-92	1992-93	
U.S. producers'--										
Company transfers:										
Quantity.....	***	***	***	***	***	+3.2	-0.9	+4.1	-0.5	
Value.....	***	***	***	***	***	-5.5	-2.3	-3.3	-6.9	
Unit value.....	\$3,722	\$3,668	\$3,409	\$3,663	\$3,427	-8.4	-1.4	-7.1	-6.4	
Domestic shipments:										
Quantity.....	***	***	***	***	***	+9.2	+13.5	-3.8	+15.8	
Value.....	***	***	***	***	***	+0.8	+13.5	-11.2	+4.6	
Unit value.....	\$3,462	\$3,463	\$3,195	\$3,255	\$2,941	-7.7	(*)	-7.7	-9.7	
Export shipments:										
Quantity.....	***	***	354	245	519	***	+84.1	***	+111.8	
Exports/shipments <sup>2</sup> .....	***	***	0.3	0.2	0.5	***	+0.2	***	+0.2	
Value.....	2,354	3,738	2,122	1,601	2,458	***	+58.8	***	+53.5	
Unit value.....	\$***	\$***	\$5,994	\$6,535	\$4,736	***	-13.7	***	-27.5	

<sup>1</sup> 'Open' market refers to the fact that apparent consumption data presented exclude producers' company transfers.

<sup>2</sup> 'Reported data' are in percent and 'period changes' are in percentage-point.

<sup>3</sup> An increase of less than 0.05 percentage points.

<sup>4</sup> 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. Unit values and other ratios are calculated from the unrounded figures, using data of firms supplying both numerator and denominator information. Part-year inventory ratios are annualized.

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

Table C-5

Hot-rolled stainless steel bar: Summary data concerning the U.S. open market<sup>1</sup>, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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	Jan.-Sept.-- 1992 1993		1990-92	1990-91	1991-92	Jan.-Sept. 1992-93
<b>U.S. open-market consumption quantity:</b>									
Amount.....	***	***	***	***	***	+12.3	+22.0	-7.9	+80.2
Producers' share <sup>2</sup> .....	***	***	***	***	***	-0.2	-1.3	+1.0	-2.4
Importers' share: <sup>2</sup>									
Brazil.....	***	***	***	***	***	+7.9	+6.0	+1.9	-4.7
India.....	***	***	***	***	***	+0.7	+0.5	+0.3	+4.4
Italy.....	***	***	***	***	***	+2.9	+6.0	-3.1	+11.0
Japan.....	***	***	***	***	***	-0.8	+5.6	-6.3	-10.1
Spain.....	***	***	***	***	***	-1.4	+1.1	-2.5	-0.6
Subtotal.....	***	***	***	***	***	+9.4	+19.1	-9.7	( <sup>3</sup> )
Other sources.....	***	***	***	***	***	-9.2	-17.8	+8.7	+2.4
Total.....	***	***	***	***	***	+0.2	+1.3	-1.0	+2.4
<b>U.S. open-market consumption value:</b>									
Amount.....	***	***	***	***	***	-5.2	+15.1	-17.7	+51.0
Producers' share <sup>2</sup> .....	***	***	***	***	***	-1.3	-5.0	+3.7	-8.0
Importers' share: <sup>2</sup>									
Brazil.....	***	***	***	***	***	+6.5	+5.9	+0.6	-2.7
India.....	***	***	***	***	***	+0.7	+0.4	+0.4	+4.0
Italy.....	***	***	***	***	***	+2.7	+5.5	-2.8	+12.9
Japan.....	***	***	***	***	***	-2.4	+5.6	-7.9	-3.5
Spain.....	***	***	***	***	***	-1.1	+0.9	-2.0	-0.5
Subtotal.....	***	***	***	***	***	+6.4	+18.3	-11.8	+10.2
Other sources.....	***	***	***	***	***	-5.1	-13.3	+8.1	-2.2
Total.....	***	***	***	***	***	+1.3	+5.0	-3.7	+8.0
<b>U.S. importers' imports from:</b>									
<b>Brazil:</b>									
Imports quantity.....	603	1,430	1,520	1,192	1,543	+152.1	+137.1	+6.3	+29.4
Imports value.....	1,569	3,899	3,379	2,663	3,209	+115.4	+148.5	-13.3	+20.5
Unit value.....	\$2,602	\$2,726	\$2,223	\$2,234	\$2,080	-14.6	+4.8	-18.4	-6.9
Ending inventory qty.....	***	***	***	***	***	***	***	***	***
<b>India:</b>									
Imports quantity.....	42	105	127	105	759	+202.4	+150.0	+21.0	+622.9
Imports value.....	123	266	329	277	1,633	+167.5	+116.3	+23.7	+489.5
Unit value.....	\$2,965	\$2,535	\$2,596	\$2,624	\$2,151	-12.5	-14.5	+2.4	-18.0
Ending inventory qty.....	***	***	***	***	***	***	***	***	***
<b>Italy:</b>									
Imports quantity.....	13	706	325	17	1,448	( <sup>4</sup> )	( <sup>4</sup> )	-54.0	( <sup>4</sup> )
Imports value.....	41	2,000	830	68	4,006	( <sup>4</sup> )	( <sup>4</sup> )	-58.5	( <sup>4</sup> )
Unit value.....	\$3,183	\$2,832	\$2,552	\$4,112	\$2,767	-19.8	-11.0	-9.9	-32.7
Ending inventory qty.....	***	***	***	***	***	***	***	***	***
<b>Japan:</b>									
Imports quantity.....	3,795	5,273	4,180	2,695	3,553	+10.1	+38.9	-20.7	+31.8
Imports value.....	11,588	15,305	10,296	6,857	9,293	-11.1	+32.1	-32.7	+35.5
Unit value.....	\$3,054	\$2,902	\$2,463	\$2,544	\$2,616	-19.3	-5.0	-15.1	+2.8
Ending inventory qty.....	***	***	***	***	***	+24.2	+51.9	-18.2	-8.9
<b>Spain:</b>									
Imports quantity.....	240	417	122	101	101	-49.2	+73.8	-70.7	0
Imports value.....	701	1,129	333	277	266	-52.5	+61.1	-70.5	-4.0
Unit value.....	\$2,926	\$2,705	\$2,720	\$2,738	\$2,651	-7.0	-7.5	+0.5	-3.2
Ending inventory qty.....	***	***	***	***	***	+24.2	+51.9	-18.2	-8.9
<b>Subject sources:</b>									
Imports quantity.....	4,692	7,933	6,274	4,111	7,403	+33.7	+69.1	-20.9	+80.1
Imports value.....	14,022	22,600	15,166	10,141	18,407	+8.2	+61.2	-32.9	+81.5
Unit value.....	\$2,989	\$2,849	\$2,417	\$2,467	\$2,487	-19.1	-4.7	-15.2	+0.8
Ending inventory qty.....	***	***	***	***	***	+20.6	+57.2	-23.3	-20.0
<b>Other sources:</b>									
Imports quantity.....	4,494	3,420	4,071	2,830	5,409	-9.4	-23.9	+19.0	+91.1
Imports value.....	12,983	10,247	10,808	7,603	10,821	-16.8	-21.1	+5.5	+42.3
Unit value.....	\$2,889	\$2,996	\$2,655	\$2,687	\$2,001	-8.1	+3.7	-11.4	-25.5
Ending inventory qty.....	***	***	***	***	***	( <sup>4</sup> )	( <sup>4</sup> )	+60.3	-9.8
<b>All sources:</b>									
Imports quantity.....	9,186	11,352	10,345	6,940	12,812	+12.6	+23.6	-8.9	+84.6
Imports value.....	27,006	32,847	25,974	17,744	29,229	-3.8	+21.6	-20.9	+64.7
Unit value.....	\$2,940	\$2,893	\$2,511	\$2,557	\$2,281	-14.6	-1.6	-13.2	-10.8

Table continued on next page.

Table C-5--Continued

Hot-rolled stainless steel bar: Summary data concerning the U.S. open market<sup>1</sup>, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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	Jan.-Sept.-- 1992 1993		1990-92	1990-91	1991-92	Jan.-Sept. 1992-93
U.S. producers <sup>1--</sup>									
Company transfers:									
Quantity.....	148,891	148,339	145,469	112,624	127,877	-2.3	-0.4	-1.9	+13.5
Value.....	266,602	273,670	257,936	200,186	214,233	-3.3	+2.7	-5.7	+7.0
Unit value.....	\$1,791	\$1,845	\$1,773	\$1,777	\$1,675	-1.0	+3.0	-3.9	-5.7
Domestic shipments:									
Quantity.....	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	\$***	\$***	\$***	\$***	\$***	***	***	***	***
Export shipments:									
Quantity.....	***	***	***	***	***	***	***	***	***
Exports/shipments <sup>2</sup> .....	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>5</sup> )	( <sup>3</sup> )	( <sup>6</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	\$***	\$***	\$***	\$***	\$***	***	***	***	***

<sup>1</sup> 'Open' market refers to the fact that apparent consumption data presented exclude producers' company transfers.<sup>2</sup> 'Reported data' are in percent and 'period changes' are in percentage-point.<sup>3</sup> A decrease of less than 0.05 percentage points.<sup>4</sup> An increase of 1,000 percent or more.<sup>5</sup> Positive figure, but less than significant digits displayed.<sup>6</sup> 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. Unit values and other ratios are calculated from the unrounded figures, using data of firms supplying both numerator and denominator information. Part-year inventory ratios are annualized.

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

Table C-6

Cold-formed stainless steel bar: Summary data concerning the U.S. open market<sup>1</sup>, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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	Jan.-Sept. 1992	Jan.-Sept. 1993	1990-92	1990-91	1991-92	1992-93
<b>U.S. open-market consumption quantity:</b>									
Amount.....	***	***	***	***	***	+5.0	+5.6	-0.5	+23.2
Producers' share <sup>2</sup> .....	***	***	***	***	***	-6.8	-5.2	-1.6	+0.9
Importers' share: <sup>2</sup>									
Brazil.....	***	***	***	***	***	+0.4	-0.2	+0.5	+0.4
India.....	***	***	***	***	***	+0.7	+0.4	+0.3	+0.9
Italy.....	***	***	***	***	***	+0.8	+0.9	-0.1	+1.4
Japan.....	***	***	***	***	***	+1.0	+0.8	+0.2	-1.7
Spain.....	***	***	***	***	***	+1.2	+1.2	+0.1	-0.3
Subtotal.....	***	***	***	***	***	+4.1	+3.1	+1.0	+0.6
Other sources.....	***	***	***	***	***	+2.7	+2.1	+0.7	-1.6
Total.....	***	***	***	***	***	+6.8	+5.2	+1.6	-0.9
<b>U.S. open-market consumption value:</b>									
Amount.....	***	***	***	***	***	-6.4	+2.9	-9.0	+12.9
Producers' share <sup>2</sup> .....	***	***	***	***	***	-5.3	-4.2	-1.1	+0.6
Importers' share: <sup>2</sup>									
Brazil.....	***	***	***	***	***	+0.2	-0.2	+0.4	+0.2
India.....	***	***	***	***	***	+0.5	+0.3	+0.2	+0.7
Italy.....	***	***	***	***	***	+0.8	+1.1	-0.3	+1.1
Japan.....	***	***	***	***	***	+0.3	( <sup>3</sup> )	+0.3	-1.2
Spain.....	***	***	***	***	***	+0.8	+0.9	-0.1	( <sup>3</sup> )
Subtotal.....	***	***	***	***	***	+2.6	+2.1	+0.5	+0.8
Other sources.....	***	***	***	***	***	+2.8	+2.1	+0.6	-1.4
Total.....	***	***	***	***	***	+5.3	+4.2	+1.1	-0.6
<b>U.S. importers' imports from--</b>									
<b>Brazil:</b>									
Imports quantity.....	1,683	1,606	2,154	1,419	2,136	+28.0	-4.6	+34.1	+50.5
Imports value.....	4,602	3,924	4,851	3,334	4,188	+5.4	-14.7	+23.6	+25.6
Unit value.....	\$2,734	\$2,443	\$2,253	\$2,349	\$1,961	-17.6	-10.6	-7.8	-16.5
Ending inventory qty.....	696	919	1,058	831	1,079	+52.0	+32.0	+15.1	+29.8
<b>India:</b>									
Imports quantity.....	584	1,074	1,379	799	1,877	+136.1	+83.9	+28.4	+134.9
Imports value.....	1,593	2,773	3,139	1,802	3,879	+97.0	+74.1	+13.2	+115.3
Unit value.....	\$2,727	\$2,582	\$2,276	\$2,257	\$2,066	-16.5	-5.3	-11.8	-8.4
Ending inventory qty.....	***	***	576	387	1,171	***	+7.3	***	+202.6
<b>Italy:</b>									
Imports quantity.....	1,053	2,095	2,016	1,149	2,793	+91.5	+99.0	-3.8	+143.1
Imports value.....	2,928	6,843	5,248	3,172	6,677	+79.2	+133.7	-23.3	+110.5
Unit value.....	\$2,779	\$3,266	\$2,603	\$2,761	\$2,391	-6.3	+17.5	-20.3	-13.4
Ending inventory qty.....	333	***	***	***	***	***	***	+68.6	+144.2
<b>Japan:</b>									
Imports quantity.....	8,530	9,883	10,034	7,534	7,537	+17.6	+15.9	+1.5	( <sup>4</sup> )
Imports value.....	27,364	28,153	26,618	20,009	19,307	-2.7	+2.9	-5.5	-3.5
Unit value.....	\$3,208	\$2,848	\$2,653	\$2,656	\$2,562	-17.3	-11.2	-6.9	-3.5
Ending inventory qty.....	***	***	***	***	***	-6.4	-4.3	-2.2	+9.7
<b>Spain:</b>									
Imports quantity.....	3,711	5,209	5,255	3,827	4,442	+41.6	+40.4	+0.9	+16.1
Imports value.....	11,110	14,715	13,021	9,505	10,791	+17.2	+32.4	-11.5	+13.5
Unit value.....	\$2,993	\$2,825	\$2,478	\$2,484	\$2,429	-17.2	-5.6	-12.3	-2.2
Ending inventory qty.....	***	***	***	***	***	***	***	***	***
<b>Subject sources:</b>									
Imports quantity.....	15,562	19,867	20,838	14,728	18,785	+33.9	+27.7	+4.9	+27.5
Imports value.....	47,597	56,407	52,877	37,823	44,842	+11.1	+18.5	-6.3	+18.6
Unit value.....	\$3,058	\$2,839	\$2,537	\$2,568	\$2,387	-17.0	-7.2	-10.6	-7.0
Ending inventory qty.....	4,602	5,165	5,856	4,547	6,801	+27.2	+12.2	+13.4	+49.6
<b>Other sources:</b>									
Imports quantity.....	8,438	11,194	11,862	8,435	8,830	+40.6	+32.7	+6.0	+4.7
Imports value.....	25,280	33,677	32,674	23,724	22,966	+29.2	+33.2	-3.0	-3.2
Unit value.....	\$2,996	\$3,009	\$2,754	\$2,813	\$2,601	-8.1	+0.4	-8.4	-7.5
Ending inventory qty.....	***	***	***	***	***	+29.9	+27.6	+1.8	+20.7
<b>All sources:</b>									
Imports quantity.....	24,000	31,061	32,701	23,163	27,615	+36.3	+29.4	+5.3	+19.2
Imports value.....	72,877	90,084	85,550	61,546	67,808	+17.4	+23.6	-5.0	+10.2
Unit value.....	\$3,036	\$2,900	\$2,616	\$2,657	\$2,455	-13.8	-4.5	-9.8	-7.6

Table continued on next page.

Table C-6--Continued

Cold-formed stainless steel bar: Summary data concerning the U.S. open market <sup>1</sup>, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

(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	Jan.-Sept.-- 1992	1993	1990-92	1990-91	1991-92	Jan.-Sept. 1992-93
U.S. producers'--									
Company transfers:									
Quantity.....	***	***	***	***	***	+3.2	-0.9	+4.1	-0.5
Value.....	***	***	***	***	***	-5.5	-2.3	-3.3	-6.9
Unit value.....	\$3,722	\$3,668	\$3,409	\$3,663	\$3,427	-8.4	-1.4	-7.1	-6.4
Domestic shipments:									
Quantity.....	***	***	***	***	***	-4.3	-1.6	-2.8	+24.8
Value.....	***	***	***	***	***	-12.7	-2.6	-10.4	+13.8
Unit value.....	\$3,428	\$3,391	\$3,126	\$3,195	\$2,912	-8.8	-1.1	-7.8	-8.9
Export shipments:									
Quantity.....	***	***	348	241	515	***	+83.1	***	+113.7
Exports/shipments <sup>2</sup> .....	***	***	***	***	***	-0.1	+0.3	-0.4	+0.2
Value.....	***	***	2,009	***	2,387	***	+58.8	***	***
Unit value.....	\$4,984	\$4,315	\$5,756	\$***	\$4,621	+15.5	-13.4	+33.4	***

<sup>1</sup> 'Open' market refers to the fact that apparent consumption data presented exclude producers' company transfers.<sup>2</sup> 'Reported data' are in percent and 'period changes' are in percentage-point.<sup>3</sup> An increase of less than 0.05 percentage points.<sup>4</sup> An increase of less than 0.05 percent.

Note.--Period changes are derived from the unrounded data. Because of rounding, figures may not add to the totals shown. Unit values and other ratios are calculated from the unrounded figures, using data of firms supplying both numerator and denominator information. Part-year inventory ratios are annualized.

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

**APPENDIX D**

**U.S. PRODUCERS' PRODUCTION COSTS, TRADE SALES, AND INTERCOMPANY  
TRANSFERS OF HOT-ROLLED STAINLESS STEEL BAR AND COLD-FORMED  
STAINLESS STEEL BAR**



The Commission requested U.S. producers to provide data on production costs, trade sales, and intercompany transfers of both hot-rolled stainless steel bar and cold-formed stainless steel bar. Talley, Republic, Carpenter, and Electralloy supplied usable data. The data are presented in tables D-1 and D-2.

**Table D-1**

**Production costs and income and loss experience of U.S. producers on their trade sales and intercompany transfers of hot-rolled stainless steel bar, fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993**

\* \* \* \* \*

**Table D-2**

**Production costs and income and loss experience of U.S. producers on their trade sales and intercompany transfers of cold-formed stainless steel bar, fiscal years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993**

\* \* \* \* \*



**APPENDIX E**

**IMPACT OF IMPORTS ON U.S. PRODUCERS' 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 stainless steel bar from Brazil, India, Italy, Japan, and/or Spain on their 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. Armco and Crucible did not respond, while \*\*\*. The responses of the six other producers are as follows:

\* \* \* \* \*



**APPENDIX F**

**FOREIGN INDUSTRY DATA ON HOT-ROLLED STAINLESS STEEL BAR  
AND COLD-FORMED STAINLESS STEEL BAR**



Table F-1

Hot-rolled stainless steel bar: Brazil's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94

Item	1990	1991	1992	Jan.-Sept. --		Projected	
				1992	1993	1993	1994
<i>Quantity (short tons)</i>							
Capacity . . . . .	50,097	50,097	49,877	37,187	36,526	47,452	47,012
Production . . . . .	***	***	24,435	***	***	***	22,758
End-of-period inventories . . . . .	1,377	1,475	***	1,180	941	806	***
Shipments:							
Home market . . . . .	4,889	***	***	***	2,728	3,737	***
Exports to--							
The United States . . . . .	***	***	***	***	***	***	***
All other markets . . . . .	***	9.162	***	***	***	***	***
Total exports . . . . .	***	***	***	***	***	***	***
Total shipments . . . . .	***	16.406	16.672	13.115	***	***	16.704
<i>Ratios and shares (percent)</i>							
Capacity utilization . . . . .	***	***	47.4	***	***	***	44.8
Inventories to production . . . . .	***	***	***	***	***	***	***
Inventories to total shipments . . . . .	***	9.8	***	7.0	***	***	***
Share of total quantity of shipments:							
Home market . . . . .	***	***	***	***	***	***	***
Exports to--							
The United States . . . . .	8.3	***	***	***	12.1	12.6	***
All other markets . . . . .	***	55.8	***	***	***	***	***

Note.—Capacity utilization and inventory ratios are calculated from data of firms providing both numerator and denominator information.

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

Table F-2

Cold-formed stainless steel bar: Brazil's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94

Item	1990	1991	1992	Jan.-Sept.--		Projected	
				1992	1993	1993	1994
<i>Quantity (short tons)</i>							
Capacity . . . . .	24,097	24,097	24,097	15,867	15,867	22,775	22,114
Production . . . . .	10,739	13,371	14,238	10,455	10,588	11,966	13,763
End-of-period inventories . . . . .	***	***	***	***	***	***	***
Shipments:							
Home market . . . . .	***	3,487	3,936	2,880	3,626	4,064	5,225
Exports to--							
The United States . . . . .	1,922	2,106	3,400	2,278	2,215	1,855	2,866
All other markets . . . . .	***	7,152	6,952	5,499	4,994	6,232	5,652
Total exports . . . . .	***	9,258	10,352	7,777	7,209	8,087	8,518
Total shipments . . . . .	10,253	12,745	14,288	10,657	10,835	12,151	13,743
<i>Ratios and shares (percent)</i>							
Capacity utilization . . . . .	38.2	44.7	49.5	56.8	54.1	49.9	49.7
Inventories to production . . . . .	***	***	***	***	***	***	***
Inventories to total shipments . . . . .	***	***	***	***	***	***	***
Share of total quantity of shipments:							
Home market . . . . .	***	27.4	27.5	27.0	33.5	33.4	38.0
Exports to--							
The United States . . . . .	***	16.5	23.8	21.4	20.4	15.3	20.9
All other markets . . . . .	***	56.1	48.7	51.6	46.1	51.3	41.1

Note.—Capacity utilization and inventory ratios are calculated from data of firms providing both numerator and denominator information.

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

**Table F-3**

**Hot-rolled stainless steel bar: India's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94**

\* \* \* \* \*

**Table F-4**

**Cold-formed stainless steel bar: India's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94**

\* \* \* \* \*

**Table F-5**

**Hot-rolled stainless steel bar: Italy's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94**

\* \* \* \* \*

**Table F-6**

**Cold-formed stainless steel bar: Italy's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94**

\* \* \* \* \*

Table F-7

Hot-rolled stainless steel bar: Japan's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94

Item	1990	1991	1992	Jan.-Sept.—		Projected	
				1992	1993	1993	1994
<i>Quantity (short tons)</i>							
Capacity . . . . .	158,030	158,030	158,030	118,510	118,510	158,030	158,030
Production . . . . .	185,470	176,840	148,910	109,920	116,700	153,250	157,370
End-of-period inventories . . . . .	1,560	1,840	1,450	1,410	1,500	1,440	1,440
Shipments:							
Home market . . . . .	***	***	***	***	***	***	***
Exports to—							
The United States . . . . .	***	***	***	***	***	***	***
All other markets . . . . .	***	***	***	***	***	***	***
Total exports . . . . .	***	***	***	***	***	***	***
Total shipments . . . . .	185,080	176,520	149,400	110,460	116,620	153,170	157,220
<i>Ratios and shares (percent)</i>							
Capacity utilization . . . . .	117.4	111.9	94.2	92.8	98.5	97.0	99.6
Inventories to production . . . . .	.8	1.0	1.0	1.0	1.0	.9	.9
Inventories to total shipments . . . . .	.8	1.0	1.0	1.0	1.0	.9	.9
Share of total quantity of shipments:							
Home market . . . . .	***	***	***	***	***	***	***
Exports to—							
The United States . . . . .	***	***	***	***	***	***	***
All other markets . . . . .	***	***	***	***	***	***	***

Note.—Capacity utilization and inventory ratios are calculated from data of firms providing both numerator and denominator information.

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

Table F-8

Cold-formed stainless steel bar: Japan's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94

Item	1990	1991	1992	Jan.-Sept.—		Projected	
				1992	1993	1993	1994
<i>Quantity (short tons)</i>							
Capacity . . . . .	143,670	143,670	143,670	107,750	107,750	143,650	143,650
Production . . . . .	145,350	138,390	123,160	91,370	94,690	123,000	126,140
End-of-period inventories . . . . .	7,580	8,940	8,090	8,590	8,610	8,410	8,630
Shipments:							
Home market . . . . .	115,140	111,660	95,140	70,730	71,050	94,020	97,300
Exports to—							
The United States . . . . .	12,870	10,820	10,910	8,450	9,100	10,850	9,630
All other markets . . . . .	15,300	14,330	17,710	12,400	13,850	17,560	18,780
Total exports . . . . .	28,170	25,150	28,620	20,850	22,950	28,410	28,410
Total shipments . . . . .	143,310	136,810	123,760	91,580	94,000	122,430	125,710
<i>Ratios and shares (percent)</i>							
Capacity utilization . . . . .	101.2	96.3	85.7	84.8	87.9	85.6	87.8
Inventories to production . . . . .	5.2	6.5	6.6	7.1	6.8	6.8	6.8
Inventories to total ship- ments . . . . .	5.3	6.5	6.5	7.0	6.9	6.9	6.9
Share of total quantity of shipments:							
Home market . . . . .	80.3	81.6	76.9	77.2	75.6	76.8	77.4
Exports to—							
The United States . . . . .	9.0	7.9	8.8	9.2	9.7	8.9	7.7
All other markets . . . . .	10.7	10.5	14.3	13.5	14.7	14.3	14.9

Note.—Capacity utilization and inventory ratios are calculated from data of firms providing both numerator and denominator information.

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

**Table F-9**

**Hot-rolled stainless steel bar: Spain's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94**

\* \* \* \* \*

**Table F-10**

**Cold-formed stainless steel bar: Spain's capacity, production, inventories, capacity utilization, and shipments, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94**

\* \* \* \* \*

**APPENDIX G**

**DATA ON U.S. IMPORTS BASED ON RESPONSES  
TO COMMISSION QUESTIONNAIRES**



Table G-1

Stainless steel bar: U.S. imports, by sources, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	1990	1991	1992	Jan.-Sept. --	
				1992	1993
<i>Quantity (short tons)</i>					
Brazil	1,936	2,819	***	2,301	3,348
India	***	933	1,616	***	2,962
Italy	975	***	1,840	782	***
Japan	14,076	15,903	14,325	10,430	11,427
Spain	***	***	***	***	***
Subtotal	19,559	23,682	24,954	17,181	23,772
Other sources	6,372	8,068	***	6,067	8,591
Total	25,931	31,750	***	23,248	32,363
<i>Value (1,000 dollars)</i>					
Brazil	5,449	7,075	***	5,546	6,818
India	***	2,292	3,543	***	5,352
Italy	2,943	***	4,575	1,909	***
Japan	41,529	45,432	39,189	28,022	29,808
Spain	***	***	***	***	***
Subtotal	57,385	65,983	64,330	43,963	56,481
Other sources	19,548	26,288	***	***	22,565
Total	76,933	92,271	***	***	79,046
<i>Unit value (per short ton)</i>					
Brazil	\$2,815	\$2,510	\$2,383	\$2,410	\$2,036
India	2,634	2,457	2,192	2,186	1,807
Italy	3,018	2,986	2,486	2,441	2,503
Japan	2,950	2,857	2,736	2,687	2,609
Spain	2,994	2,630	2,365	2,361	2,322
Average	2,934	2,786	2,578	2,559	2,376
Other sources	3,068	3,258	2,856	***	2,627
Average	2,967	2,906	2,649	***	2,442

Note.--Unit values are calculated using data of firms supplying both quantity and value information.

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

Table G-2

Hot-rolled stainless steel bar: U.S. imports, by sources, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	1990	1991	1992	Jan.-Sept.--	
				1992	1993
<i>Quantity (short tons)</i>					
Brazil	***	***	***	***	***
India	***	***	***	***	***
Italy	***	***	***	***	***
Japan	3,413	4,773	3,642	2,616	3,121
Spain	***	***	***	***	***
Subtotal	3,604	5,839	4,283	3,052	3,971
Other sources	***	***	***	***	***
Total	***	***	***	***	***
<i>Value (1,000 dollars)</i>					
Brazil	***	***	***	***	***
India	***	***	***	***	***
Italy	***	***	***	***	***
Japan	9,940	14,152	10,158	7,401	8,445
Spain	***	***	***	***	***
Subtotal	10,497	16,526	11,836	8,546	10,135
Other sources	***	***	***	***	***
Total	***	***	***	***	***
<i>Unit value (per short ton)</i>					
Brazil	\$2,916	\$2,219	\$2,618	\$2,626	\$1,988
India	***	***	***	***	***
Italy	3,000	3,429	***	***	***
Japan	2,912	2,965	2,789	2,829	2,706
Spain	***	***	***	***	***
Average	2,913	2,830	2,763	2,800	2,552
Other sources	***	***	***	***	***
Average	2,905	2,816	2,754	2,771	2,542

Note.—Unit values are calculated using data of firms supplying both quantity and value information.

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

Table G-3

Cold-formed stainless steel bar: U.S. imports, by sources, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Item	1990	1991	1992	Jan.-Sept. -	
				1992	1993
<i>Quantity (short tons)</i>					
Brazil	1,746	1,709	***	1,844	2,498
India	***	933	1,575	***	2,900
Italy	974	***	1,840	782	***
Japan	10,289	11,023	10,544	7,772	7,899
Spain	***	***	***	***	***
Subtotal	15,581	17,685	20,470	14,047	19,332
Other sources	***	5,382	5,112	3,355	6,223
Total	***	23,067	25,582	17,402	25,555
<i>Value (1,000 dollars)</i>					
Brazil	4,895	4,601	***	4,360	5,128
India	***	2,292	3,444	***	5,207
Italy	2,940	***	4,575	1,909	***
Japan	30,179	30,932	28,610	20,492	20,413
Spain	***	***	***	***	***
Subtotal	45,478	48,985	51,932	35,200	45,251
Other sources	***	14,881	12,633	8,365	13,379
Total	***	63,866	64,565	43,565	58,630
<i>Unit value (per short ton)</i>					
Brazil	\$2,804	\$2,692	\$2,329	\$2,364	\$2,053
India	2,634	2,457	2,187	2,180	1,796
Italy	3,018	2,984	2,486	2,441	2,503
Japan	2,933	2,806	2,713	2,637	2,584
Spain	2,994	2,630	2,365	2,361	2,322
Average	2,919	2,770	2,537	2,506	2,341
Other sources	2,866	2,765	2,471	2,493	2,150
Average	2,908	2,769	2,524	2,503	2,294

Note.—Unit values are calculated using data of firms supplying both quantity and value information.

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



