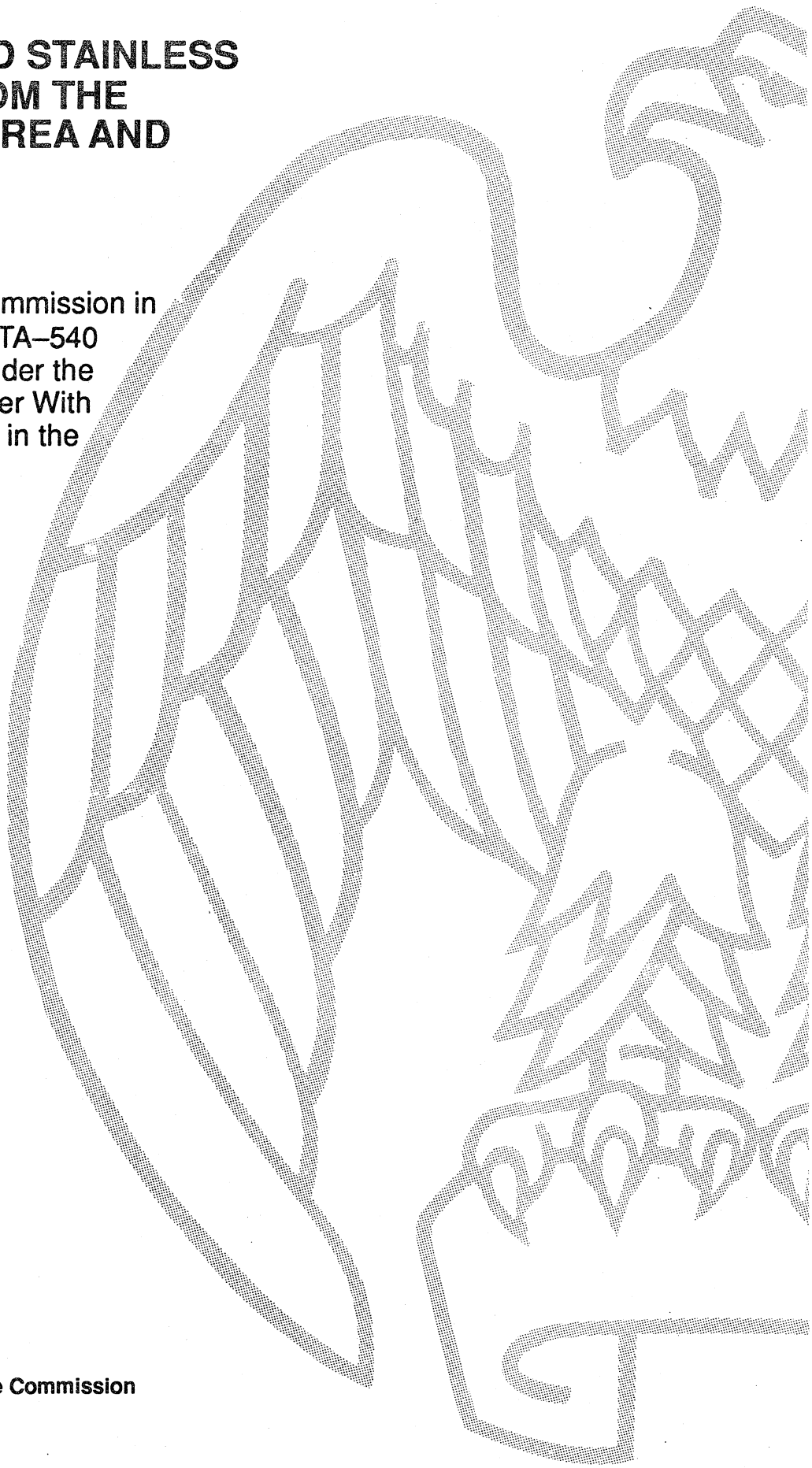
CERTAIN WELDED STAINLESS STEEL PIPES FROM THE REPUBLIC OF KOREA AND TAIWAN

Determinations of the Commission in Investigations Nos. 731–TA–540 and 541 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigations



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UNITED STATES INTERNATIONAL TRADE COMMISSION

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigations Nos. 731-TA-540 and 541 (Preliminary)

CERTAIN WELDED STAINLESS STEEL PIPES FROM
THE REPUBLIC OF KOREA AND TAIWAN

Determinations

On the basis of the record[1] developed in the subject investigations, the Commission determines,[2] pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from the Republic of Korea and Taiwan of certain welded stainless steel pipes,[3] provided for in subheadings 7306.40.10 and 7306.40.50 and covered by statistical reporting numbers 7306.40.1000, 7306.40.5010, 7306.40.5030, 7306.40.5050, and 7306.5070 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).

Background

On November 18, 1991, a petition was filed with the Commission and the Department of Commerce by Avesta Sandvik Tube, Inc., Schaumberg, IL; Bristol

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

[2] Commissioner Crawford and Commissioner Watson not participating.

[3] For purposes of these investigations, the subject product is austenitic stainless steel pipe that meets the standards and specifications set forth by the American Society for Testing and Materials (ASTM) for the welded form of chromium-nickel pipe designated ASTM A-312. Welded ASTM A-312 pipe is produced by forming stainless steel flat-rolled products into a tubular configuration and welding along the seam. Welded ASTM A-312 pipe is a commodity product generally used as a conduit to transmit liquids or gases. Major applications for welded ASTM A-312 pipe include, but are not limited to, digester lines, blow lines, pharmaceutical lines, petrochemical stock lines, brewery process and transport lines, general food processing lines, automotive paint lines, and paper process machines.

Metals, Bristol, TN; Damascus Tubular Products, Greenville, PA; Trent Tube Division, Crucible Materials Corp., East Troy WI; and the United Steelworkers of America, alleging that an industry in the United States is materially injured and threatened with material injury by reason of LTFV imports of certain welded stainless steel pipes from the Republic of Korea and Taiwan. Accordingly, effective November 18, 1991, the Commission instituted antidumping investigations Nos. 731-TA-540 and 541 (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 November 26, 1991 (56 F.R. 59961). The conference was held in Washington, DC, on December 10, 1991, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF THE COMMISSION[1]

On the basis of the information obtained in these preliminary investigations, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of allegedly less than fair value (LTFV) imports of welded stainless steel (WSS) pipes, designated by the American Society for Testing and Materials (ASTM) as A-312.[2] [3]

I. LIKE PRODUCT AND THE DOMESTIC INDUSTRY

As a threshold matter, in determining whether there is a reasonable indication of "material injury" or "threat of material injury" to a domestic industry by reason of the subject imports, the Commission must define the "domestic industry." Section 771(4)(A) of the Tariff Act of 1930 defines the relevant domestic industry as "the domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product . . . ."[4] 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 . . . ."[5]

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[1] Commissioners Crawford and Watson did not participate in these investigations.

[2] Material retardation is not an issue in these investigations and therefore will not be discussed further.

[3] The legal standard in preliminary antidumping duty investigations is set forth in section 733(a) of the Tariff Act of 1930, 19 U.S.C. § 1673b(a), which requires the Commission to determine whether, based on the best information available at the time of the preliminary determination, there is a reasonable indication of material injury to a domestic industry, or threat thereof, or material retardation of the establishment of such an industry, by reason of imports alleged to be sold at less than fair value. See, e.g., American Lamb v. United States, 785 F.2d 994, 1001-04 (Fed. Cir. 1986).

[4] 19 U.S.C. § 1677(4)(A).

[5] 19 U.S.C. § 1677(10).

The definition of the like product in these investigations raises certain issues that have not been directly examined by the Commission in previous steel pipe and tube investigations. The first such issue is whether ASTM A-312 pipes should be found to be a separate like product from all other types of WSS pipes and tubes.[6] The second such issue is whether WSS pipes and tubes should be found to be separate like products. The imported product subject to these investigations is WSS ASTM A-312 pipes.[7] Petitioners argue that the like product should be defined as only WSS ASTM A-312 pipes.[8] Respondents, on the other hand, argue that the Commission should follow its past practice and define the like product as all WSS pipes and tubes.[9]

The Commission's decision regarding the appropriate like product is essentially a factual determination, and the Commission has applied the statutory standard of "like, or in the absence of like, most similar in

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[6] ASTM A-312 pipes can be sold in either seamless or welded form. Petitioners have not included seamless ASTM A-312 pipes in these investigations. In the past, the Commission has found that welded and seamless pipes and tubes are separate like products. See Stainless Steel Pipes and Tubes from Sweden, Inv. No. 731-TA-354 (Final), USITC Pub. 2033 (November 1987); Stainless Steel Pipes and Tubes from Sweden, Inv. No. 701-TA-281 (Final), USITC Pub. 1966 (April 1987); Certain Seamless Steel Pipes and Tubes from Japan, Inv. No. 731-TA-87 (Final), USITC Pub. 1347 (1983); Pipes and Tubes of Iron or Steel from Japan, Inv. No. 731-TA-15 (Preliminary), USITC Pub. 1058 (April 1980). None of the parties in these investigations challenged the Commission's previous determinations with respect to the distinction between welded and seamless products.

[7] See 56 Fed. Reg. 65044 (December 13, 1991)(Commerce defined the scope of investigation as "austenitic stainless steel pipe that meets the standards and specifications set forth by the American Society for Testing and Materials (ASTM) for the welded form of chromium-nickel pipe designated ASTM A-312"). ASTM A-312 pipes have the following major applications: digester lines, blow lines, pharmaceutical lines, petrochemical stock lines, brewery process and transport lines, general food processing lines, automotive paint lines, and paper process machines. Report at A-3 n.1.

[8] Antidumping Petition, Welded ASTM A-312 Stainless Steel Pipe from the Republic of Korea and Taiwan (November 18, 1991) at 9 (hereinafter "Petition").

[9] See Preliminary Conference Transcript (December 10, 1991) (hereinafter "Tr.") at 91-98.

characteristics and uses" on a case-by-case basis.[10] The like product factors typically considered by the Commission include: (1) physical characteristics, (2) end uses, (3) interchangeability, (4) channels of distribution, (5) customer perceptions, (6) common manufacturing facilities, production processes and production employees and, (7) where appropriate, price.[11] No single factor is dispositive, and the Commission may consider other factors it deems relevant based upon the facts of a particular investigation.[12] Generally the Commission disregards minor variations between the articles subject to an investigation and requires clear dividing lines among possible like products.[13]

The Commission has previously made like product distinctions in pipe and tube cases based upon: broad types of steel (carbon, heat-resisting, stainless or other alloy); the method of manufacture (seamless or welded); shape (circular or rectangular); wall thickness (heavy-walled or light-walled); use (standard, line, structural, mechanical, pressure or oil country tubular goods); and diameter. Petitioners argue that ASTM A-312 pipes should be distinguished from other WSS pipes by noting, for example, that ASTM A-409 WSS pipes are larger in diameter; that ASTM A-358 WSS pipes have heavier walls and are used in critical applications (e.g., nuclear power plants); and that ASTM A-778 WSS pipes do not undergo an annealing process and are usually used

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[10] Asociacion Colombiana de Exportadores de Flores, et al. v. United States, 12 Ct. Int'l Trade 634, 693 F. Supp. 1165 (1988)("Asocoflores").

[11] Torrington Co. v. United States, 767 F. Supp. 744 (Ct. Int'l Trade 1990), aff'd. 938 F.2d 1278 (1991); Asocoflores, 693 F. Supp. 1165, 1168 n.4, 1180 n.7 (Ct. Int'l Trade 1988).

[12] Gray Portland Cement and Cement Clinker from Venezuela, Inv. No. 303-TA-21 and 731-TA-519 (Preliminary), USITC Pub. 2400 (July 1991) at 12.

[13] See S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979). See also Extruded Rubber Thread from Malaysia, Inv. Nos. 303-TA-22 and Inv. No. 731-TA-527 (Preliminary), USITC Pub. 2441 (October 1991).

in paper mill production facilities.[14] Similarly, petitioners argue that there are substantial differences between WSS pipes and WSS tubes based on differing wall thicknesses, weights, tolerances, channels of distribution and price.[15]

We are hesitant to base our like product definition on specific industry classifications as proposed here by petitioners.[16] Congress has directed the Commission to look for "clear dividing lines among possible like products" and further stated that "[t]he requirement that a product be 'like' the imported article should not be interpreted in such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other . . . ."[17] We are not persuaded that specific industry classifications such as ASTM, which are essentially quality certifications, rise above the level of minor variations

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[14] Tr. at 23.

[15] Tr. at 15, 17. Petitioners also argue that one justification for limiting the like product to ASTM A-312 pipes is that the imports from Korea and Taiwan consist of ASTM A-312 pipes only. See Petition at 20; Tr. at 10. However, information obtained in these investigations reveals that there have in fact been imports of tubes from Taiwan and Korea (although they fall outside of the scope of the investigations). Report at A-11; Tr. at 88-89.

[16] There are 42 different ASTM classifications for stainless steel pipes and 54 different ASTM classifications for stainless steel tubes. However, our information indicates that at present only about four ASTM designations for WSS pipes are actually being sold in the U.S. market: A-312, A-358, A-409, and A-778. There are also at least two other classification organizations of stainless steel products: American Society for Mechanical Engineers and American National Standards Institute.

[17] S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979). See also Certain Laser Light-Scattering Instruments and Parts Thereof from Japan, Inv. No. 731-TA-455 (Final), USITC Pub. 2328 (November 1990) at 6 n.13; Certain Telephone Systems and Subassemblies Thereof from Japan, Korea and Taiwan, Inv. Nos. 731-TA-426-428 (Preliminary), USITC Pub. 2156 (February 1989) at 4 n.4 (citing Asocoflores, 693 F. Supp. at 1170 n.8); Antifriction Bearings (Other Than Tapered Roller Bearings) and Parts Thereof from the Federal Republic of Germany, France, Italy, Japan, Romania, Singapore, Sweden, Thailand and the United Kingdom, Inv. Nos. 303-TA-19-20 and 731-TA-391-399 (Final), USITC Pub. 2185 (May 1989) at 27.

among the same like product. We therefore decline to adopt petitioners' argument that ASTM A-312 pipes should be a separate like product from other pipes and tubes.[18]

Based on the record evidence in these preliminary investigations regarding the overall similarities between the different ASTM classifications of pipes and tubes, we also decline to define WSS pipes as a separate like product from WSS tubes. First, WSS pipes and tubes of different ASTM classifications have common physical characteristics in that they are welded products of circular cross section. These products also share similar mechanical properties.[19] Although the domestic producers and importers surveyed by the Commission indicated a wide variety of specific end uses for the different ASTM classifications of pipes and tubes, pipes and tubes are generally used in pressure and mechanical applications in which corrosion and

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[18] This narrow like product definition proffered by petitioners directly corresponds to the class or kind of imports set forth in Commerce's identification of the scope of the investigation. However, the Commission is not bound by Commerce's scope determination. Although the Commission accepts the scope determination of Commerce as to what imported products are subject to investigation, the Commission determines which domestic products are like those imported products within Commerce's scope. Algoma Steel Corp., Ltd. v. United States, 688 F. Supp. 639 (Ct. Int'l Trade 1988), aff'd 865 F.2d 240 (Fed. Cir. 1988), cert. denied, 109 S.Ct. 3244 (1989); Bulk Ibuprofen from India, Inv. Nos. 701-TA-308 and 731-TA-526 (Preliminary), USITC Pub. 2428 (September 1991) at 4; Steel Wire Rope from Argentina and Mexico, Inv. Nos. 731-TA-476 and 479 (Final), USITC Pub. 2410 (August 1991) at 4. In a number of previous investigations, the Commission has defined the like product in a manner broader than Commerce's scope. See, e.g. Certain Welded Carbon Steel Pipes and Tubes from the Republic of Korea, Inv. No. 701-TA-168 (Final), USITC Pub. 1345 (February 1983) at 3-4 (Commerce defined the imports subject to investigation as "welded carbon steel pipes and tubes of circular cross section, 0.375 inch to 16 inches in outside diameter (with walls not thinner than 0.065 inch)," but the Commission defined the like product to include all welded carbon steel pipes and tubes). See also Heavy Forged Handtools from the People's Republic of China, Inv. No. 731-TA-457 (Final), USITC Pub. 2357 (February 1991); Natural Bristle Paint Brushes from the People's Republic of China, Inv. No. 731-TA-244 (Final), USITC Pub. 1805 (January 1986).

[19] Report at A-6.

heat resistance and high strength-to-weight ratios are important considerations. Regarding the channels of distribution, we recognize that the record contains conflicting evidence; however, we find it noteworthy that eleven out of fifteen domestic producers and importers stated that the channels of distribution for ASTM A-312 pipes and certain tube products were either the same or similar.[20]

We find it particularly significant that many domestic producers of ASTM A-312 pipes produce one or more of the various other ASTM pipes and/or tubes in the same facilities, often using the same equipment and employees.[21] Seven of the eight reporting producers acknowledged that they produce WSS pipes, other than ASTM A-312 pipes, and/or tubes on the same machinery and equipment on which they produce WSS ASTM A-312 pipes.[22] Moreover, the production process is fundamentally the same for all types of pipes as well as for tubes (up through the welding process), although the equipment required to produce each product may differ in size and tooling.[23] [24]

In light of the foregoing information, we define the like product to include all WSS pipes and tubes for purposes of these preliminary

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[20] Report at A-6.
[21] Report at A-6.
[22] Report at A-6.
[23] Report at A-7; Tr. at 43.
[24] Vice Chairman Brunsdale finds the evidence that producers can and do produce different kinds of stainless steel pipes and tubes on the same equipment to be particularly dispositive in determining like product. In her view the presence of production substitutability among the different pipes and tubes is sufficient reason to place them within the same like product as all stainless steel pipes and tubes will be affected by any dumping. See Polyethylene Terephthalate Film, Sheet, and Strip from Japan and the Republic of Korea, Inv. Nos. 731-TA-458 and 459 (Final), USITC Pub. 2383 (May 1991) at 37-41 (Dissenting Views of Acting Chairman Anne E. Brunsdale).

determinations.[25] [26] The domestic industry thus consists of the U.S. producers of all WSS pipes and tubes.

II. Cumulation

Section 777(7)(C)(iv) of the Tariff Act of 1930 requires the Commission to assess cumulatively "the volume and effect of imports from two or more countries of like products subject to investigation if such imports are reasonably coincident with one another and compete with one another and with the domestic like product in the United States market,"[27] unless imports from a subject country are negligible and have no discernible adverse impact on the domestic industry.[28]

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[25] We note that this is the same like product definition that the Commission has generally used in previous WSS pipe and tube investigations. See, e.g., Stainless Steel Pipes and Tubes from Sweden, Inv. No. 731-TA-354 (Final), USITC Pub. 2033 (November 1987); Stainless Steel Pipes and Tubes from Sweden, Inv. No. 701-TA-281 (Final), USITC Pub. 1966 (April 1987); Stainless Steel Pipes and Tubes from Sweden, Inv. No. 731-TA-354 (Preliminary), USITC Pub. 1919 (December 1986); Welded Stainless Steel Pipe and Tube from Japan, Inv. No. AA1921-180, USITC Pub. 899 (1978). The Commission has not previously found pipes and tubes to be separate like products in other steel investigations. We note, however, that even had we defined the like product more narrowly in the instant investigations, our conclusion that there is a reasonable indication that the domestic industry is experiencing material injury by reason of the subject imports would have been the same.

[26] We will further consider the issue of whether pipes and tubes, or pipes of a specific ASTM classification, are separate like products in any final investigations. Additional information concerning any distinctions that producers and purchasers draw between pipes and tubes would be helpful in any final investigations. In any final investigations, we also shall reconsider our decision to include grade 409 pipes in light of our previous determinations in Stainless Steel Pipes and Tubes from Sweden, Inv. No. 731-TA-354 (Final), USITC Pub. 2033 (November 1987), and Stainless Steel Pipes and Tubes from Sweden, Inv. No. 701-TA-281 (Final), USITC Pub. 1966 (April 1987). In those investigations, the Commission found that grade 409 WSS pipes was a separate like product because: it was considered to be of lower quality; it contained less chromium than the other stainless steel pipes; it was used primarily in automotive exhaust systems; it was produced primarily by a distinct group of companies by means of a less complex production process; and it was primarily a captively consumed product.

[27] 19 U.S.C. § 1677(7)(C)(iv); Chaparral Steel Co. v. United States, 901 F.2d 1097, 1105 (Fed. Cir. 1990).

[28] 19 U.S.C. § 1677(7)(C)(v).

In assessing whether the subject imports compete with one another, and with the domestic like product, the Commission generally has considered four factors, including:

> (1) the degree of fungibility between the imports from different countries and between imports 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 geographical markets of imports from different countries and the domestic like product;
>
> (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.[29]

No single factor is determinative and the list of factors is not exclusive; these factors are intended to provide the Commission with a framework for determining whether the imports compete with each other and with the domestic like product. Only a "reasonable overlap" of competition is required.[30]

The evidence clearly indicates that the subject imported products compete with each other and with the domestic product. The imports from Korea and Taiwan meet the same ASTM specifications. Most importers stated that U.S., Taiwanese, and Korean products could be used interchangeably.[31] In addition, the information gathered in analyzing alleged lost sales between comparable U.S., Korean and Taiwanese products indicates that the Korean and

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[29] 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 1986), aff'd, Fundicao Tupy, S.A. v. United States, 678 F. Supp. 898 (Ct. Int'l Trade 1988), aff'd, 859 F.2d 915 (Fed. Cir. 1988).

[30] See, e.g., Wieland Werke, AG v. United States, 718 F.Supp. 50, 52 (Ct. Int'l Trade 1989).

[31] Report at A-47.

Taiwanese products compete with domestic products.[32] Furthermore, the subject imports and the domestic product are often sold through the same or similar channels of distribution.[33]

In addition, the subject imports are marketed within a reasonably coincident period and they are subject to investigation.[34] None of the parties has offered, nor has the Commission independently found, any evidence that imports are negligible.[35] Therefore, we find that cumulation is required.

III. CONDITION OF THE INDUSTRY

The factors considered by the Commission in assessing the condition of the industry include: consumption, production, shipments, inventories, capacity, capacity utilization, employment, productivity, wages, financial performance, capital expenditures, investment in productive facilities, and research and development expenditures.[36] No single factor is determinative; rather, in each investigation the Commission must consider the particular nature of the relevant industry. In addition, we evaluate these factors in

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[32] See, e.g., Report at A-51.
[33] See, e.g., Report at A-6, A-11.
[34] See, e.g., Sweaters Wholly or in Chief Weight of Manmade Fibers from Hong Kong, the Republic of Korea, and Taiwan, Inv. Nos. 731-TA-448-450 (Preliminary), USITC Pub. 2234 (November 1989) at 15.
[35] Korea's share of apparent U.S. consumption (based on quantity) increased from 0.2 percent in 1988 to 4.1 percent in 1990, and increased from 3.2 percent to 7.9 percent between January-September 1990 and January-September 1991. Report at A-44 (Table 22). Taiwan's share of apparent U.S. consumption (based on quantity) increased from 7.6 percent in 1988 to 9.9 percent in 1990, and increased from 9.7 percent to 12.3 percent between January-September 1990 and January-September 1991. Id. at A-44 (Table 22).
[36] 19 U.S.C. § 1677(7)(C)(iii).

the "context of the business cycle and conditions of competition that are distinctive to the affected industry."[37]

In terms of quantity, apparent U.S. consumption of WSS pipes and tubes decreased substantially between 1988 and 1989.[38] In 1990, consumption rebounded to near its 1988 levels.[39] Between the interim periods of January-September 1990 to January-September 1991 (hereinafter "interim periods"), the quantity of apparent U.S. consumption decreased slightly.[40] In terms of value, apparent U.S. consumption decreased in both 1989 and 1990. Between the interim periods, the value of apparent U.S. consumption again decreased.[41]

U.S. production of WSS pipes and tubes decreased steadily throughout the period of investigation.[42] Similarly, U.S. producers' U.S. shipments, in terms of both quantity and value, decreased in 1989 and 1990, and also decreased in interim 1991 as compared to interim 1990.[43] Following an increase from 1988 to 1989, the average unit value of U.S. producers' U.S. shipments declined in 1990 and in the interim 1991 period.[44] U.S. producers' inventories of WSS pipes and tubes decreased in 1989, and then increased slightly in 1990.[45] Between the interim periods, inventories increased substantially.[46]

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[37] Id. In these investigations, the Commission has taken into account the fact that there are export restraints on the subject imports, but despite such export restraints there is a reasonable indication that these imports are a cause of material injury.
[38] Report at A-11 and A-12 (Table 2).
[39] Id.
[40] Id.
[41] Id.
[42] Report at A-13 (Table 3).
[43] Report at A-17, A-14-15 (Table 4).
[44] Report at A-16 (Table 4).
[45] Report at A-17, A-18 (Table 5).
[46] Id.

U.S. capacity to produce ASTM A-312 WSS pipes increased from 1988 to 1990, and remained stable during the interim periods.[47] Capacity utilization fell significantly from 1988 to 1990, and then decreased slightly during the interim periods.[48]

U.S. employment levels in the WSS pipe and tube industry decreased in 1990 to levels below those of 1988.[49] Employment levels also decreased in interim 1991 as compared to interim 1990.[50] U.S. productivity decreased from 1988 to 1990, but then increased in interim 1991 as compared to interim 1990.[51] Hours worked decreased from 1988 to 1989, remained stable in 1990, and then decreased in interim 1991 as compared to interim 1990.[52] Hourly wages increased in 1989, decreased in 1990, and increased in interim 1991 as compared to interim 1990.

The financial performance of the domestic industry deteriorated substantially during the period of investigation. Net sales, operating income, and operating margins for WSS pipes and tubes all experienced downward trends throughout the period for which data were collected.[53] For example, net sales decreased by two percent from 1988 to 1989, by an additional 12.1 percent in 1990, and by 16.7 percent between the interim periods.[54] Capital

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[47] Report at A-12. The capacity and capacity utilization data collected by the Commission relates to the ASTM A-312 category of welded pipes only. In any final investigations, the Commission will attempt to collect capacity data regarding WSS pipes and tubes as a whole.
[48] Id.
[49] Report at A-19 (Table 6).
[50] Id.
[51] Report at A-20 (Table 6).
[52] Report at A-19 (Table 6).
[53] See Report at A-29-30 (Table 13).
[54] Report at A-29.

expenditures for WSS pipes and tubes increased significantly between 1988 and 1989, and then decreased in 1990 as well as between the interim periods.[55] Investment in productive facilities decreased continuously from 1988 to 1990.[56]

The factors set forth above demonstrate that there is a reasonable indication that the domestic industry is materially injured.[57]

IV. REASONABLE INDICATION OF MATERIAL INJURY BY REASON OF ALLEGEDLY LTFV IMPORTS

The Commission must determine whether there is a reasonable indication that the domestic industry has suffered material injury "by reason of" the subject imports.[58] When making a determination as to whether there is a reasonable indication of material injury by reason of the subject imports, the statute requires the Commission to consider the following factors in each case:

> (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 in the United States;[59]

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[55] Report at A-31 (Table 14).

[56] No data were provided for the interim periods. Report at A-32 (Table 15). Only one producer submitted information regarding research and development expenses. For reasons of confidentiality, therefore, we refrain from discussing this producer's experience.

[57] Vice Chairman Brunsdale does not reach a separate legal conclusion concerning the presence or absence of material injury based on this information. Although she does not believe an independent determination is required by the statute, she finds the discussion of the condition of the domestic industry to be helpful in determining whether any injury resulting from the allegedly LTFV imports is material.

[58] 19 U.S.C. § 1673b(a)(1)(A).

[59] 19 U.S.C. § 1677(7)(B)(i).

The Commission may consider other economic factors it deems relevant, but must explain why they are relevant.[60]

When determining whether material injury to the domestic industry is "by reason of" the imports under investigation, the Commission may take into account information concerning other causes of harm to the domestic industry, but it is not to weigh causes.[61] The imports need only be a cause of material injury.[62] [63]

The volume of cumulated imports from the subject countries increased by 65 percent from 1988 to 1990, and by 51 percent from interim 1990 to interim 1991.[64] The volume of imports of WSS ASTM A-312 pipes from Korea increased by 1,813 percent from 1988 to 1990, and increased by 136 percent between the interim periods. The value of such imports rose 1,581 percent from 1988 to 1990, and then rose 127 percent between the interim periods.[65] The volume of imports from Taiwan increased by 19 percent from 1988 to 1990, and then by 22 percent between the interim periods. The value of the imports from Taiwan

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[60] 19 U.S.C. § 1677(7)(B)(ii).
[61] S. Rep. No. 249, 96th Cong. 1st Sess. 57-58, 74 (1979).
[62] See, e.g., Granges Metallverken AB v. United States, 716 F. Supp. 17, 25 (Ct. Int'l Trade 1989); LMI-La Metalli Industriale, S.p.A. v. United States, 712 F. Supp. 959, 971 (Ct. Int'l Trade 1989); Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1101 (Ct. Int'l Trade 1988).
[63] Vice Chairman Brunsdale agrees that the Commission is not to weigh causes. It must nonetheless determine that the injury "by reason of" the subject imports is material in order to reach an affirmative determination. She notes that while the a-cause-of-material-injury formulation used in the text has received some favorable commentary in judicial dicta, it finds no support in the language of the statute or in the legislative history. For a full treatment of this issue, see Certain Telephone Systems and Subassemblies Thereof from Japan and Taiwan, Inv. Nos. 731-TA-426 and 428 (Final), USITC Pub. 2237 (November 1989) at 147-248 and particularly 228-248 (Dissenting Views of Vice Chairman Ronald A. Cass).
[64] Report at A-42.
[65] Id.

increased by 18 percent during 1988-90, and then increased by 13 percent between the interim periods.[66]

The market penetration levels (based on quantity) of the cumulated imports subject to investigation went from 7.8 percent in 1988 to 4.8 percent in 1989, and increased to 14.0 percent in 1990. The cumulated market penetration levels went from 12.9 percent in interim 1990 to 20.1 percent in interim 1991.[67]

U.S. prices generally increased from 1988 to the first half of 1989, but then declined thereafter.[68] Prices of the Taiwanese product followed a similar pattern to that of U.S. prices. The drop in domestic market prices for WSS pipes and tubes coincided with the increase in the subject imports.

Information on Korean prices was less complete and showed no clearly discernible pattern.[69] Imports from Taiwan undersold the U.S. products in 33 out of 45 quarterly comparisons with margins of underselling ranging from 0.4 percent to 30.5 percent.[70] Imports from Korea undersold the U.S. products in 16 out of 20 quarters for which data were available.[71] Taken together, the pricing data on imports from Taiwan and Korea show a consistent pattern of underselling.

Only three specific allegations of lost U.S. sales to subject imports were made, and the Commission was only partially able to verify these allegations. However, one purchaser did state that in the past the company had purchased imports from Taiwan due to lower prices.[72]

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[66] Id.
[67] Report at A-44 (Table 22).
[68] Report at A-47-50 (Tables 23-25).
[69] Report at A-48-50 (Tables 23-25).
[70] Report at A-50-51.
[71] Id.
[72] Report at A-51.

Based on an analysis of the record, we find that there is a reasonable indication of material injury to a domestic industry by reason of imports of WSS ASTM A-312 pipe from Korea and Taiwan allegedly sold at less than fair value.[73]

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[73] The following factors were particularly important in Vice Chairman Brunsdale's affirmative determinations. First, the market share of the subject imports was substantial. Report at A-44 (Table 22). Second, the alleged dumping margins are substantial -- ranging up to 30 percent. Id. at A-9. Finally, the subject imports are reasonably good substitutes for the domestic like product. See, supra, at 10-11.

INFORMATION OBTAINED IN THE INVESTIGATIONS

INTRODUCTION

On November 18, 1991, a petition was filed with the U.S. International Trade Commission ("the Commission") and the U.S. Department of Commerce ("Commerce") by counsel on behalf of Avesta Sandvik Tube, Inc. ("Avesta Sandvik"), Schaumberg, IL; Bristol Metals ("Bristol"), Bristol, TN; Damascus Tubular Products ("Damascus"), Greenville, PA; Trent Tube Division, Crucible Materials Corp. ("Trent Tube"), East Troy, WI; and the United Steelworkers of America. The petition alleges that an industry in the United States is materially injured and threatened with further material injury by reason of imports from the Republic of Korea ("Korea") and Taiwan of certain welded stainless steel pipes[1] ("welded A-312 pipes") that are allegedly being sold in the United States at less than fair value ("LTFV").[2]

Accordingly, effective November 18, 1991, the Commission instituted investigations Nos. 731-TA-540 and 541 (Preliminary) under section 733(a) of the Tariff Act of 1930, to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of the alleged LTFV imports of welded A-312 pipes into the United States.

Notice of the institution of these investigations and of a conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of November 26, 1991 (56 F.R. 59961) (appendix A). Commerce published its notices of initiation in the Federal Register of December 13, 1991 (56 F.R. 65043) (appendix A). The conference was held on December 10, 1991; a list of witnesses appearing at the conference is presented in appendix B. The Commission's vote was held on December 30, 1991. The statute directs that the Commission make its determinations in these investigations within 45 days after receipt of the petition, or by January 2, 1992.

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[1] For purposes of these investigations, the subject product is austenitic stainless steel pipe that meets the standards and specifications set forth by the American Society for Testing and Materials (ASTM) for the welded form of chromium-nickel pipe designated ASTM A-312. Welded ASTM A-312 pipe is produced by forming stainless steel flat-rolled products into a tubular configuration and welding along the seam. Welded ASTM A-312 pipe is a commodity product generally used as a conduit to transmit liquids or gases. Major applications for welded ASTM A-312 pipe include, but are not limited to, digester lines, blow lines, pharmaceutical lines, petrochemical stock lines, brewery process and transport lines, general food processing lines, automotive paint lines, and paper process machines. Welded ASTM A-312 pipe is classified in subheadings 7306.40.10 and 7306.40.50, and is covered by statistical reporting numbers 7306.40.1000, 7306.40.5010, 7306.40.5030, 7306.40.5050, and 7306.40.5070, of the Harmonized Tariff Schedule of the United States (HTS).

[2] The petitioners also alleged "critical circumstances" (massive imports over a short period of time) with regard to Taiwan, pursuant to section 733(e) of the Tariff Act of 1930 (19 USC § 1673b(e)(1)).

Previous Commission Title VII Investigations Concerning Welded Stainless Steel Pipes

The Commission has conducted two other antidumping investigations concerning welded stainless steel pipes. The first investigation, No. AA1921-180,[3] covered imports of welded stainless steel pipes and tubes from Japan, and resulted in a negative determination by the Commission. The second investigation, Inv. No. 731-TA-354 (Final), covered imports of welded stainless steel pipes and tubes from Sweden and also resulted in a negative determination.[4] That determination was subsequently appealed to the U.S. Court of International Trade and remanded to the Commission for further consideration. On remand, the Commission determined that an industry in the United States is materially injured by reason of imports of welded stainless steel pipes and tubes from Sweden found by Commerce to have been sold in the United States at LTFV.[5] The CIT affirmed the Commission's remand determination and ordered the suspension of liquidation of entries of the subject merchandise pending appeal and "conclusive" determination. The case is currently on appeal at the U.S. Court of Appeals for the Federal Circuit.[6] The Commission also conducted a countervailing duty investigation (No. 701-TA-281 (Final)), on stainless steel pipes and tubes from Sweden, and reached a negative determination in that investigation.[7]

THE PRODUCT

Description

The pipe products from Korea and Taiwan that are the subject of these investigations are welded stainless steel pipes produced according to standards and specifications set forth by the American Society for Testing and Materials (ASTM) in product designation A-312. This designation covers both seamless and welded austenitic (chromium-nickel) pipes; however, only the welded product is subject to these investigations. Because ASTM A-312 pipes must meet particular specifications regarding material usage, method of manufacture, tolerances, and dimension, the imported and domestic products are essentially fungible.[8]

In previous Commission investigations, the terms "pipes" and "tubes" have been used interchangeably.[9] However, some industry publications consider

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[3] Welded Stainless Steel Pipe and Tube from Japan, USITC Pub. 899, July 1978.

[4] Stainless Steel Pipes and Tubes from Sweden, USITC Pub. 2033, November 1987. This investigation also involved seamless stainless steel pipes and tubes for which the Commission's final determination was affirmative.

[5] USITC Pub. 2304 (Aug. 1990).

[6] Trent Tube Div., Crucible Materials Corp. v. United States, No. 91-1173 (Fed. Cir. argued Sept. 12, 1991).

[7] Stainless Steel Pipes and Tubes from Sweden, USITC Pub. 1966, April 1987.

[8] Transcript of the Commission's staff conference (hereinafter "transcript"), Dec. 10, 1991, testimony of William Grant, p. 25.

[9] See Stainless Steel Pipes and Tubes from Sweden, USITC Pub. 2033, November 1987.

pipes to be products produced in large quantities in a few standard sizes and tubes to be products made to customers' specifications for dimensions, finish, chemical composition, and mechanical properties.[10]

In the current investigations, however, petitioners assert that only welded ASTM A-312 stainless steel pipe constitutes the product that is like the imported product. According to petitioners, seamless pipe products, non-A-312 pipe products,[11] and any stainless steel tube products[12] should not be included within the like product definition.[13]

Petitioners allege that there are important differences in the physical characteristics and uses of pipes compared with tubes. In general, pipes have thicker walls and are sold in a limited number of standard dimensions. They tend to be used as conduits to transmit liquids or gases. In contrast, tubes are manufactured to exact dimensions and other physical characteristics specified by the customer. They are generally used in heating and cooling applications.[14] On the other hand, respondents state that stainless tubes should be included in the like product in these investigations because of their claim that stainless steel pipe and tube are manufactured largely with common machinery, by the same employees, and using the same basic production process.[15]

The Commission collected information in its questionnaires in these investigations to assess the extent of similarities and differences between pipe and tube products. The information collected is presented in the tabulation on the following page, which shows producers' and importers' evaluations of the similarities and differences between welded austenitic ASTM A-312 stainless steel pipes and welded austenitic ASTM A-249 and A-269 stainless steel tubes.

As shown in the tabulation, the majority of both producers and importers noted differences in the specified characteristics of A-312 pipes and A-249 and A-269 tubes, with the exception of production processes and manufacturing facilities (producers) and mechanical properties, production processes, manufacturing facilities, and channels of distribution (importers).

The Commission collected additional information to determine the extent of similarities and differences in production processes and manufacturing facilities between A-312 pipes and other pipe and tube products. In response to the question in the Commission's producer questionnaire "Does your firm

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[10] Ibid.

[11] Non-A-312 pipe includes other ASTM specifications for welded stainless steel pipe such as A-358, A-409, and A-778. In general, these other ASTM designations involve pipe of larger size and lower quality than the subject ASTM A-312 pipe (Petition, p. 19).

[12] Petitioners assert that ASTM A-249 tubing embodies the tubing specifications that most closely parallel ASTM A-312 pipe (Petition, p. 21). ASTM A-269 tubing is also similar in specifications to ASTM A-312 pipe (Petition, exhibit 6).

[13] Transcript, testimony of David Hartquist, p. 9.

[14] Transcript, testimony of George Werner, pp. 16-17, and petition, p. 22.

[15] Postconference brief of the Korean respondents, p. 7.

Product characteristic	Producers' evaluations			Importers' evaluations		
	Same	Similar	Different	Same	Similar	Different
	Number of respondents[1]					
Physical dimensions	(2)	(2)	8	(2)	(2)	14
Mechanical properties	2	1[3]	4	2	6	2
Technical specifications (tolerances)	(2)	(2)	7	(2)	(2)	11
End uses	1	(2)	6	1	3	8
Customer perceptions	(2)	(2)	7	(2)	1	7
Interchangeability	(2)	1[4]	6	(2)	1	12
Price/cost	1	(2)	5	1	(2)	9
Production process	2	3	2	1	8	3
Manufacturing facilities and employees	5	2	1	3	7	1
Channels of distribution	2	(2)	2	5	4	2

[1] The total number of respondents for each characteristic varies depending on the number of useable responses for that characteristic.

[2] No response.

[3] Respondent noted that mechanical properties will be consistent for similar austenitic grades for A-249, A-269, and A-312.

[4] Respondent noted that interchangeability of the products is contingent upon specific application, but they may overlap.

produce products other than welded austenitic ASTM A-312 stainless steel pipes (for example, welded austenitic stainless steel pipes that are not ASTM A-312 or welded austenitic stainless steel tubes) on the same machinery and equipment on which you produce welded austenitic ASTM A-312 stainless steel pipes?", seven producers (accounting for the vast majority of reported domestic production of welded A-312 pipes in 1990) answered "Yes" and one producer (***) answered "No." The "other products" mentioned by the producers that answered "Yes" are listed below:

* * * * * * *

Even though *** does not produce other products on the same machinery and equipment on which it produces welded A-312 pipes, it stated that it perhaps could produce other products, "Depending upon the product."

Producers that produced other products on the same machinery and equipment on which they produced welded A-312 pipes were asked "What, if anything, is involved in the retooling, etc., to produce the other products? Can production be easily shifted back and forth?" The producers' responses were quite varied. ***. *** said that retooling would be necessary, and *** stated that no significant retooling is necessary. *** stated "Different tooling on the mill." *** stated that production cannot easily be shifted back and forth, and *** stated that production can be switched easily; *** mentioned that only certain machines can produce both pipe and tube, that there is approximately a 12-hour setup time to switch, and that size is a

major consideration; and *** mentioned that it would take "hours of set-up time" to switch.

Manufacturing Processes

Welded stainless pipes are generally produced in a continuous process beginning with coils of hot-rolled or cold-rolled sheet, strip, or plate. The coil has usually (with the exception of hot-rolled coils) been annealed and pickled and produced to the dimensional, physical, and metallurgical limits specified by the pipe producer. The coil is guided through a series of paired forming rolls. As it progresses through these rolls, its cross-sectional profile is changed into a tubular shape with the butted edges ready for welding. The welding process most frequently used is tungsten inert gas (TIG) welding. TIG welding employs a non-consumable tungsten electrode and a blanket of inert gas (usually helium) to protect molten weld metal from atmospheric contamination or oxidation. The tungsten electrode maintains an arc to the tube seam, melting exposed butted edges. Side rolls hold the heated edges together as the weld solidifies.[16]

Major advantages of the TIG method are the absence of filler material (a requirement for the production of ASTM A-312 pipe), complete fusion of butted edges, and shielding of the weld area. Welds have the same composition as the parent metal and are free from inclusions, oxides, and similar defects. Other welding methods in use or being explored include the plasma arc and tandem arc, electron beam, high frequency, and laser beam techniques.[17] Following the welding process, the pipe is generally annealed, then cut to random length, pickled, tested hydrostatically, and stenciled.[18]

The process used to manufacture welded pipes in general applies to the subject ASTM A-312 pipe product as well. The ASTM sets forth specific requirements regarding the materials, method of manufacture, finishing operations, and testing to which welded pipe must conform in order to qualify as ASTM A-312 pipe.[19] Because welded ASTM A-312 pipe must meet certain production and performance standards, domestic and foreign production processes for this product are believed to be essentially the same.

The production process for welded stainless tubing is fundamentally the same as that for welded pipe up through the welding process, although the equipment required to produce each product differs in size and in tooling.[20] Welded tubing generally undergoes additional processes and refinements including cold drawing, cold working, and further annealing.[21]

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[16] The American Iron and Steel Institute, Steel Products Manual: Steel Specialty Tubular Products, October 1980; The Welded Steel Tube Institute, "Technical Bulletin #2."

[17] The Welded Steel Tube Institute, "Technical Bulletin #2."

[18] Petitioners' postconference brief, p. 21.

[19] Petition, exhibit 6.

[20] Transcript, testimony of William Grant and George Werner, pp. 42-44.

[21] Petitioners' postconference brief, p. 22, and The Welded Steel Tube Institute, "Technical Bulletin #2."

Uses

Welded stainless steel pipes, both domestic and imported, are generally used as conduits to convey liquids and gases from one process to another in a process industry facility. Major uses for welded A-312 pipes include digester lines, blow lines, pharmaceutical production lines, petrochemical stock lines, automotive paint lines, and various processing lines such as those in breweries, paper mills, and general food facilities.[22] Other types of austenitic pipes appear to be less broadly used: for example, ASTM A-358 pipe, a specialized heavier-wall product, is used primarily in highly critical applications such as nuclear power plants and liquified natural gas facilities; ASTM A-778 pipes are used in less demanding applications and are generally categorized as paper mill pipes.[23]

Tubes, on the other hand, have a wider range of applications than pipes, ranging from less demanding structural uses to more critical applications. Tubes are used primarily in heating and cooling apparatus such as heat exchangers, condensers, boilers, and feed water heaters.[24]

Substitute Products

There are few, if any, instances in which pipe made of substitute materials such as plastics and other advanced materials can be used in the same applications as welded stainless pipes. Properties imparted to the pipe by stainless steel, such as corrosion resistance, strength (e.g., ability to withstand pressure), and temperature resistance are generally not imparted by the use of plastics. Similarly, carbon steel and other relatively lower-priced steel pipes are not functional substitutes for stainless steel pipes.[25]

U.S. Tariff Treatment

Imports of welded ASTM A-312 stainless steel pipes from Korea and Taiwan are classified for tariff purposes in subheadings 7306.40.10 and 7306.40.50, and are covered by statistical reporting numbers 7306.40.1000, 7306.40.5010, 7306.40.5030, 7306.40.5050, and 7306.40.5070, of the Harmonized Tariff Schedule of the United States (HTS).

The column 1-general (most-favored-nation) rate of duty for the subject stainless pipes, applicable to the imports from Korea and Taiwan, is 7.6 percent ad valorem for products having a wall thickness of less than 1.65 mm and 5 percent ad valorem for those having a wall thickness of 1.65 mm or more.

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[22] Petition, p. 9.
[23] Transcript, p. 23.
[24] Petition, p. 22.
[25] Transcript, testimony of William Grant and George Werner, pp. 63-64.

NATURE AND EXTENT OF ALLEGED SALES AT LTFV

If the Commission makes affirmative preliminary injury determinations with respect to alleged LTFV imports from Korea and Taiwan, Commerce will make its preliminary determinations of alleged sales at LTFV on or before April 27, 1992.

Korea

Based in part on actual sales prices of welded A-312 pipes in Korea obtained from market research, petitioners have alleged that welded A-312 pipes are being imported from Korea at prices that are LTFV. Based on comparisons of prices accepted by Commerce, the alleged dumping margins range from 9.0 to 31.7 percent.

Taiwan

Petitioners have alleged that welded A-312 pipes are being imported from Taiwan at prices that are LTFV. The petitioners' estimate of foreign market value is based on actual home market sales prices obtained from market research commissioned by petitioners. Based on comparisons of prices accepted by Commerce, the alleged dumping margins range from 1.7 to 31.9 percent.

Petitioners also allege that "critical circumstances" exist, within the meaning of section 733(e) of the Act, with respect to imports from Taiwan.

THE DOMESTIC MARKET

U.S. Producers

The Commission sent questionnaires to 28 firms believed to produce welded stainless steel pipes and tubes. Firms were requested to provide data on their welded A-312 pipe operations, their welded A-249 and A-269 tube operations, their "all" welded stainless steel pipe operations, and their "all" welded stainless steel tube operations. The eight firms that provided data in response to the questionnaire, and the welded stainless steel pipes or tubes that each of these firms produced in 1990, are shown in the following tabulation:[26] [27]

* * * * * * *

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[26] ***.

[27] Seven firms indicated that they did not produce any of the pipes or tubes, and 13 firms did not respond to the questionnaire.

A list of the firms producing welded A-312 pipes, their shares of production in 1990, and plant locations are presented in table 1. The four petitioners represent approximately *** percent of reported U.S. production of welded A-312 pipes.

Avesta Sandvik

Avesta Sandvik is a ***-owned subsidiary of Avesta Sandvik Tube AB of Sweden. Avesta Sandvik bought its Wildwood, FL, plant from Armco Advanced Materials Corp. on ***. Avesta can ***. Stainless steel tubes are approximately *** percent of Avesta Sandvik's overall production.

Bristol

Synalloy Corp., Spartanburg, SC, is the parent company of Bristol. Synalloy has ***. There is ***. Bristol makes ***. Bristol reports that ***. Bristol does not ***.

Damascus

Damascus is ***-owned by Sharon, Inc. of Sharon, PA. Damascus produces ***. ***.

Trent Tube

Trent Tube is ***-owned by Crucible Materials Corp., Syracuse, NY. In 1990, Trent Tube ***. Trent Tube makes ***. ***.

U.S. Importers

Questionnaires were sent to 49 firms believed to import welded A-312 pipes from Korea or Taiwan. Of these, 14 firms provided some useable data on their imports of welded A-312 pipes, and the remainder either notified the Commission that they do not import or did not respond. Data from the 14 importers of welded A-312 pipes are believed to account for 70 percent of 1990 imports from Korea, 60 percent of 1990 imports from Taiwan, and 65 percent of cumulative imports from both countries, when compared with official U.S. import statistics.

Channels of Distribution

The channels of distribution differ between welded A-312 pipes and welded A-249 and A-269 tubes. Pipes are usually sold to distributors of pipes, valves, and fittings whereas a larger proportion of tubes are sold to end users due to the specialized nature of tubing products. Approximately 88 percent of all reported 1990 domestic shipments of U.S.-produced welded A-312 pipes was to unrelated distributors. The other 12 percent was sold to end users, two-thirds of which went to related end users and the remaining portion

Table 1
Welded A-312 pipes: U.S. producers, their shares of production, and plant locations, by firms, 1990

Firm	Share of reported 1990 production	Plant locations
	Percent	
Petitioning firms:		
Avesta Sandvik Tube, Inc.....	***	Wildwood, FL
Bristol Metals, Inc[1].....	***	Bristol, TN
Damascus Tubular Products.....	***	Greenville, PA
Trent Tube Division, Crucible Materials Corp.....	***	Carrollton, GA East Troy, WI
Non-petitioning firms:		
LTV Tubular Products Co.....	***	Cleveland, OH
Consolidated Metals Corp.....	***	Dover, NJ
Swepco Tube Corp.....	***	Clifton, NJ
United Industries, Inc.....	***	Beloit, WI

[1] The statistics supplied by Bristol ***.

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

to unrelated end users. About 90 percent of domestic shipments of Korean and Taiwan imports went to unrelated distributors, with the remaining 10 percent shipped to unrelated end users. ***.

U.S. producers sold approximately half of their welded A-249 and A-269 tubes to unrelated end users and half to unrelated distributors. ***.

Apparent U.S. Consumption[28]

Data on apparent U.S. consumption of welded A-312 pipes, welded A-312 pipes plus welded A-249 and A-269 tubes, all welded stainless steel pipes, and all welded stainless steel pipes and tubes, are presented in table 2. The quantity and value of apparent U.S. consumption of welded A-312 pipes decreased by 20 percent and 3 percent, respectively, between 1988 and 1989. In 1990, both quantity and value increased to less than 0.5 percent below their 1988 levels. From January-September 1990 to January-September 1991, quantity and value decreased by 2 percent and 11 percent, respectively. Consumption trends for the other product categories in the table were generally similar to those for welded A-312 pipes.

[28] The apparent consumption data are based on useable U.S. shipment data provided by *** U.S. producers and on official import statistics of the U.S. Department of Commerce.

Table 2
All welded austenitic pipes and tubes: Apparent U.S. consumption, by products, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Quantity (short tons)				
Welded A-312 pipes.....	58,730	47,053	58,517	42,713	41,900
A-312 pipes, A-249 tubes, and A-269 tubes.....	67,782	55,599	65,957	48,276	47,720
All welded austenitic pipes.	60,004	48,291	59,680	43,606	42,730
All welded austenitic pipes and tubes.....	87,523	73,940	80,707	60,191	58,082
	Value (1,000 dollars)				
Welded A-312 pipes.....	223,968	216,667	223,087	166,837	148,636
A-312 pipes, A-249 tubes, and A-269 tubes.....	257,815	251,737	248,851	185,640	168,300
All welded austenitic pipes.	229,826	223,447	228,797	171,128	152,378
All welded austenitic pipes and tubes.....	310,077	302,843	289,469	218,833	195,826

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.

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

The information in this section of the report is based on data received from ***, representing 100 percent of reported U.S. production of welded A-312 pipes in 1990.

U.S. Producers' Capacity, Production, and Capacity Utilization

Data for U.S. production, capacity, and capacity utilization are summarized in table 3. Capacity to produce welded A-312 pipes increased by 11 percent from 1988 to 1990, and remained the same during the interim periods. U.S. production decreased irregularly by 12 percent from 1988 to 1990, and by 1 percent during the interim periods. Capacity utilization fell irregularly from 81.1 percent in 1988 to 63.7 percent in 1990, and decreased from 62.5 percent to 60.5 percent during the interim periods. Capacity for the other product categories is unavailable.

Table 3
All welded austenitic pipes and tubes: U.S. capacity, production, and capacity utilization, by products, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	End-of-period capacity (tons)				
Welded A-312 pipes[1]	55,260	58,110	61,460	46,095	46,095
Welded A-249 and A-269 tubes	15,334	15,334	15,334	10,822	11,500
Subtotal[1]	70,594	73,444	76,794	56,917	57,595
All welded austenitic pipes	(2)	(2)	(2)	(2)	(2)
All welded austenitic tubes	(2)	(2)	(2)	(2)	(2)
Subtotal	(2)	(2)	(2)	(2)	(2)
	Production (short tons)				
Welded A-312 pipes	41,873	33,447	36,859	27,131	26,830
Welded A-249 and A-269 tubes	9,112	8,630	7,575	5,582	6,014
Subtotal	50,985	42,077	44,434	32,713	32,844
All welded austenitic pipes	43,233	34,808	38,122	28,096	27,731
All welded austenitic tubes	28,086	25,987	21,683	17,090	15,844
Subtotal	71,319	60,795	59,805	45,186	43,575
	End-of-period capacity utilization (percent)				
Welded A-312 pipes	81.1	61.4	63.7	62.5	60.5
Welded A-249 and A-269 tubes	59.4	56.3	49.4	51.6	52.3
Average	76.1	60.2	60.7	60.3	58.8
All welded austenitic pipes	(2)	(2)	(2)	(2)	(2)
All welded austenitic tubes	(2)	(2)	(2)	(2)	(2)
Average	(2)	(2)	(2)	(2)	(2)

[1] Includes an annual capacity of ***.
[2] Not available.

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.

U.S. Producers' Shipments

U.S. producers' shipments of welded A-312 pipes, welded A-249 and A-269 tubes, all welded stainless steel pipes, and all welded stainless steel tubes are presented in table 4.

Table 4
All welded austenitic pipes and tubes: Shipments by U.S. producers, by products and by types, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Quantity (short tons)				
Welded A-312 pipes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	40,293	33,696	36,472	27,559	24,209
Exports	***	***	***	***	***
Total	***	***	***	***	***
Welded A-249 and A-269 tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	9,052	8,546	7,440	5,563	5,820
Exports	***	***	***	***	***
Total	***	***	***	***	***
A-312 pipes, A-249 tubes, and A-269 tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	49,345	42,242	43,912	33,122	30,029
Exports	***	***	***	***	***
Total	***	***	***	***	***
All welded austenitic pipes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	41,567	34,934	37,635	28,452	25,039
Exports	***	***	***	***	***
Total	***	***	***	***	***
All welded austenitic tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	27,519	25,649	21,027	16,585	15,352
Exports	***	***	***	***	***
Total	***	***	***	***	***
All welded austenitic pipes and tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	69,086	60,583	58,662	45,037	40,391
Exports	***	***	***	***	***
Total	***	***	***	***	***

Table continued on the following page.

Table 4--Continued
All welded austenitic pipes and tubes: Shipments by U.S. producers, by products and by types, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Value (1,000 dollars)				
Welded A-312 pipes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	162,768	160,597	146,379	113,035	88,761
Exports	***	***	***	***	***
Total	***	***	***	***	***
Welded A-249 and A-269 tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	33,847	35,070	25,764	18,803	19,664
Exports	***	***	***	***	***
Total	***	***	***	***	***
A-312 pipes, A-249 tubes, and A-269 tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	196,615	195,667	172,143	131,838	108,425
Exports	***	***	***	***	***
Total	***	***	***	***	***
All welded austenitic pipes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	168,626	167,377	152,089	117,326	92,503
Exports	***	***	***	***	***
Total	***	***	***	***	***
All welded austenitic tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	80,251	79,396	60,672	47,705	43,448
Exports	***	***	***	***	***
Total	***	***	***	***	***
All welded austenitic pipes and tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Subtotal	248,877	246,773	212,761	165,031	135,951
Exports	***	***	***	***	***
Total	***	***	***	***	***

Table continued on the following page.

Table 4--Continued
All welded austenitic pipes and tubes: Shipments by U.S. producers, by products and by types, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Unit value (per ton)				
Welded A-312 pipes:					
Company transfers	$***	$***	$***	$***	$***
Domestic shipments	***	***	***	***	***
Average	4,040	4,766	4,013	4,102	3,666
Exports	***	***	***	***	***
Average	***	***	***	***	***
Welded A-249 and A-269 tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Average	3,739	4,103	3,463	3,380	3,379
Exports	***	***	***	***	***
Average	***	***	***	***	***
A-312 pipes, A-249 tubes, and A-269 tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Average	3,984	4,632	3,920	3,980	3,611
Exports	***	***	***	***	***
Average	***	***	***	***	***
All welded austenitic pipes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Average	4,057	4,791	4,041	4,124	3,694
Exports	***	***	***	***	***
Average	***	***	***	***	***
All welded austenitic tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Average	2,916	3,095	2,885	2,876	2,830
Exports	***	***	***	***	***
Average	***	***	***	***	***
All welded austenitic pipes and tubes:					
Company transfers	***	***	***	***	***
Domestic shipments	***	***	***	***	***
Average	3,602	4,073	3,627	3,664	3,366
Exports	***	***	***	***	***
Average	***	***	***	***	***

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.

Company Transfers

U.S. producers' company transfers of welded A-312 pipes *** by *** percent from 1988 to 1990, and *** by *** percent from January-September 1990 to January-September 1991.

U.S. Shipments

U.S. producers' U.S. shipments (company transfers plus domestic shipments) of welded A-312 pipes decreased irregularly by 12 percent from 1988 to 1990, and decreased by 12 percent from January-September 1990 to January-September 1991. Similarly, the value of these shipments decreased by 12 percent from 1988 to 1990, and decreased by 21 percent from January-September 1990 to January-September 1991. Trends for the other product categories were similar to those for welded A-312 pipes. The average unit value of U.S. shipments of welded A-312 pipes increased from $4,040 per short ton in 1988 to $4,766 in 1989, and returned to $4,013 in 1990. The average unit value decreased from $4,102 to $3,666 during the interim periods.

Export Shipments

Export shipments of welded A-312 pipes *** by *** percent from 1988 to 1990, and *** by *** percent during the interim periods. The principal export markets for welded A-312 pipes are ***. The quantity of export shipments was *** percent of total shipments of welded A-312 pipes throughout the period of investigation, except for January-September 1991, when they were *** percent. The unit values of these exports were *** than the unit values of domestic shipments throughout the period.

Total Shipments

Total U.S. producers' shipments of domestically produced welded A-312 pipes decreased irregularly by *** percent from 1988 to 1990, and decreased by *** percent during the interim periods. Similarly, the value of such shipments decreased by *** percent from 1988 to 1990, and decreased by *** percent during the interim periods. Trends for total shipments of the other product categories were similar to those of welded A-312 pipes.

U.S. Producers' Inventories

Data on U.S. producers' end-of-period inventories are presented in table 5. Inventories of welded A-312 pipes decreased by 14 percent from 1988 to 1990, and increased by 84 percent from January-September 1990 to January-September 1991. The ratio of inventories to total shipments fell from 11.3 percent in 1988 to 10.6 percent in 1990, and increased from 8.6 percent to 17.9 percent in the interim periods. Trends for inventories of the other product categories were similar to those of welded A-312 pipes.

Table 5
All welded austenitic pipes and tubes: End-of-period inventories of U.S. producers, by products, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Quantity (short tons)				
Welded A-312 pipes.....	***	***	***	***	***
Welded A-249 and A-269 tubes.....	***	***	***	***	***
Subtotal.....	***	***	***	***	***
All welded austenitic pipes..	***	***	***	***	***
All welded austenitic tubes..	***	***	***	***	***
Subtotal.....	***	***	***	***	***
	Ratio to total shipments (percent)				
Welded A-312 pipes.....	11.3	11.6	10.6	8.6	17.9
Welded A-249 and A-269 tubes.....	5.1	4.8	4.7	3.4	6.0
Average.....	10.1	10.2	9.6	7.7	15.6
All welded austenitic pipes..	10.8	11.1	10.3	8.3	17.1
All welded austenitic tubes..	4.5	3.7	4.8	4.3	5.0
Average.....	8.3	8.0	8.3	6.8	12.5

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

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

Data on employment and productivity are shown in table 6. The number of workers producing welded A-312 pipes increased irregularly by 3 percent from 1988 to 1990, and decreased by 2 percent from January-September 1990 to January-September 1991. Hours worked and wages paid to workers producing welded A-312 pipes decreased irregularly by 0.2 percent and 4 percent, respectively, from 1988 to 1990, and by 2 percent and 1 percent, respectively, during the interim periods. Total compensation decreased by 4 percent from 1988 to 1990, and by 1 percent during the interim periods. Hourly wages and hourly total compensation paid to workers both decreased irregularly by 2 percent from 1988 to 1990, and increased by 3 percent and 1 percent, respectively, during the interim periods.

Productivity of welded A-312 pipes decreased by 10 percent from 1988 to 1990, and increased by 1 percent during the interim periods. Unit labor costs (per short ton) increased by 9 percent from 1988 to 1990, and increased by 0.2 percent during the interim periods. Trends for the other product categories in the table were similar to those for welded A-312 pipes.

The workforces at *** are represented by the United Steelworkers of America. ***'s workforce is represented by the International Association of

Table 6
Average number of total employees and production and related workers in establishments wherein all welded austenitic pipes and tubes are produced, hours worked,[1] wages and total compensation paid to such workers, and hourly wages, hourly total compensation, productivity, and unit labor costs,[2] by products, 1988-90, January-September 1990, and January-September 1991[3]

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Number of employees				
All products	1,491	1,504	1,474	1,449	1,412
	Number of production and related workers (PRWs)				
Welded A-312 pipes	502	486	516	507	506
Welded A-249 and A-269 tubes	119	129	117	110	133
Subtotal	621	615	633	617	639
All welded austenitic pipes	527	510	542	533	529
All welded austenitic tubes	***	428	367	380	342
Subtotal	***	938	909	913	871
All products	***	1,214	1,191	1,163	1,140
	Hours worked by PRWs (1,000 hours)				
Welded A-312 pipes	1,105	1,010	1,084	810	791
Welded A-249 and A-269 tubes	271	281	260	192	236
Subtotal	1,376	1,291	1,344	1,002	1,027
All welded austenitic pipes	1,154	1,058	1,135	848	826
All welded austenitic tubes	***	932	855	677	591
Subtotal	***	1,990	1,990	1,525	1,417
All products	***	2,504	2,540	1,913	1,841
	Wages paid to PRWs (1,000 dollars)[4]				
Welded A-312 pipes	10,457	9,733	10,044	7,547	7,458
Welded A-249 and A-269 tubes	3,486	3,748	3,350	2,463	3,118
Subtotal	13,943	13,481	13,394	10,010	10,576
All welded austenitic pipes	11,018	10,302	10,647	8,003	7,899
All welded austenitic tubes	***	11,891	10,983	8,645	7,562
Subtotal	***	22,193	21,630	16,648	15,461
All products	***	29,199	29,625	21,694	21,700

See footnotes at end of the table.

Table 6--Continued
Average number of total employees and production and related workers in establishments wherein all welded austenitic pipes and tubes are produced, hours worked,[1] wages and total compensation paid to such workers, and hourly wages, hourly total compensation, productivity, and unit labor costs,[2] by products, 1988-90, January-September 1990, and January-September 1991[3]

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Total compensation paid to PRWs (1,000 dollars)				
Welded A-312 pipes	15,191	14,373	14,586	10,899	10,800
Welded A-249 and A-269 tubes	4,673	5,075	4,265	3,181	3,777
Subtotal	19,864	19,448	18,851	14,080	14,577
All welded austenitic pipes	15,805	14,991	15,244	11,396	11,283
All welded austenitic tubes	***	15,790	13,708	10,942	9,107
Subtotal	***	30,781	28,952	22,338	20,390
All products	***	41,277	40,398	29,762	29,103
	Hourly wages paid to PRWs				
Welded A-312 pipes	$12.19	$12.48	$11.91	$11.96	$12.29
Welded A-249 and A-269 tubes	12.86	13.34	12.88	12.83	13.21
Average	12.35	12.71	12.14	12.16	12.55
All welded austenitic pipes	12.15	12.44	11.91	11.96	12.30
All welded austenitic tubes	***	12.76	12.85	12.77	12.80
Average	***	12.61	12.37	12.37	12.54
All products	***	12.84	12.89	12.51	13.10
	Hourly total compensation paid to PRWs				
Welded A-312 pipes	$13.75	$14.23	$13.46	$13.46	$13.65
Welded A-249 and A-269 tubes	17.24	18.06	16.40	16.57	16.00
Average	14.44	15.06	14.03	14.05	14.19
All welded austenitic pipes	13.70	14.17	13.43	13.44	13.66
All welded austenitic tubes	***	16.94	16.03	16.16	15.41
Average	***	15.47	14.55	14.65	14.39
All products	***	16.48	15.90	15.56	15.81
	Productivity (tons per 1,000 hours)				
Welded A-312 pipes	37.9	33.1	34.0	33.5	33.9
Welded A-249 and A-269 tubes	30.6	28.0	28.0	27.9	25.0
Average	36.5	32.0	32.8	32.4	31.9
All welded austenitic pipes	37.5	32.9	33.6	33.1	33.6
All welded austenitic tubes	***	27.1	25.0	24.9	26.6
Average	***	30.2	29.9	29.5	30.7

See footnotes at end of the table.

Table 6--Continued
Average number of total employees and production and related workers in establishments wherein all welded austenitic pipes and tubes are produced, hours worked,[1] wages and total compensation paid to such workers, and hourly wages, hourly total compensation, productivity, and unit labor costs,[2] by products, 1988-90, January-September 1990, and January-September 1991[3]

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Unit labor costs (per ton)				
Welded A-312 pipes.....	$362.79	$429.72	$395.72	$401.72	$402.53
Welded A-249 and A-269 tubes.....	563.90	643.87	586.66	594.36	639.09
Average.....	396.01	470.57	427.18	433.46	445.24
All welded austenitic pipes..	365.58	430.68	399.87	405.61	406.87
All welded austenitic tubes..	***	625.62	641.22	648.99	578.59
Average.....	***	512.62	486.59	496.89	469.05

[1] Includes hours worked plus hours of paid leave time.
[2] On the basis of total compensation paid.
[3] Firms providing employment data accounted for 100 percent (A-312 pipes) and 95 percent (A-249 and A-269 tubes) of reported total U.S. shipments (based on quantity) in 1990.
[4] Understated because ***, which accounted for *** percent of reported total compensation during 1988-90, was unable to provide data on wages.

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.

Machinists and Aerospace Workers, AFL-CIO. ***'s workforce is represented by the International Union of Radio and Machine Workers. ***'s workforce is not represented by a union. *** reported that their production and related workers producing welded A-312 pipes also produce other stainless steel pipes and/or tubes.

In its producers' questionnaire, the Commission requested U.S. producers to provide detailed information concerning reductions in the number of production and related workers producing welded A-312 pipes and/or A-249 and A-269 tubes from January 1988 to September 1991, if such reductions involved at least 5 percent of the workforce or 50 workers. *** reported that it laid off *** workers producing welded A-312 pipes in *** and *** such workers in ***. It also reported laying off *** workers producing welded A-249 and A-269 tubes in ***, *** such workers in ***, *** such workers in ***, and *** such workers in ***. The layoffs ranged from *** to ***, and in a number of instances were for "indefinite" periods. The reason given for all the reductions was "lack of work." *** reported reducing its welded A-312 workforce by *** in *** and *** in ***, citing "lack of business" as the reason for the "indefinite" reduction.

Financial Experience of U.S. Producers

Six producers,[29] representing 90 percent of reported U.S. welded A-312 pipe production, submitted financial data[30] on the establishments in which welded A-312 pipes and welded A-249 and A-269[31] tubes are produced and on their welded A-312 pipes and welded A-249 and A-269 tubes operations. The producers also provided financial data on all welded stainless steel pipes, all welded stainless steel tubes, and all welded stainless steel pipes and tubes. The income-and-loss data for welded A-249 and A-269 tubes and all welded stainless steel tubes are presented in appendix C.

The trends for all companies combined for net sales, operating income, and the operating income margins, as shown in the following tables, were all downward from 1988 to 1989, from 1989 to 1990, and from interim 1990 to interim 1991 for operations on the overall establishments, welded A-312 pipes, welded A-312 pipes and welded A-249 and A-269 tubes combined, all welded stainless steel pipes, and all welded stainless steel pipes and tubes.

Overall Establishment Operations

Income-and-loss data of the six producers on their overall establishment operations in which welded A-312 pipes and/or welded A-249 and A-269 tubes are produced are shown in table 7. Net sales on overall establishment operations decreased 4.1 percent from $303.5 million in 1988 to $291.1 million in 1989, and decreased an additional 10.1 percent to $261.9 million in 1990. Operating income was $29.9 million in 1988, $17.3 million in 1989, and $9.1 million in 1990. The operating income as a share of sales was 9.8 percent in 1988, 5.9 percent in 1989, and 3.5 percent in 1990. Net sales of $170.1 million for the nine-month period ended September 30, 1991 were 16.9 percent less than the net sales of $204.6 million for the nine-month period ended September 30, 1990. The operating income was $837,000 in the 1991 interim period compared to $9.6 million in interim 1990. The operating income margin as a share of sales was 4.7 percent in interim 1990 and 0.5 percent in interim 1991. Net sales of welded A-312 pipes were 50.8 percent of the net sales for overall establishment operations in 1990.

Operations on Welded A-312 Pipes

Income-and-loss data for the six producers of welded A-312 pipes are shown in table 8. Net sales of welded A-312 pipes decreased 3.3 percent from $147.2 million in 1988 to $142.3 million in 1989, and decreased an additional 6.5 percent to $133.0 million in 1990. Operating income was $17.6 million in 1988, $11.8 million in 1989, and $6.6 million in 1990. Operating income

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[29] ***.

[30] ***.

[31] ***.

Table 7
Income-and-loss experience of U.S. producers on their overall establishment operations in which welded A-312 pipes and/or welded A-249 and A-269 tubes are produced, accounting years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Value (1,000 dollars)				
Net sales	303,480	291,150	261,861	204,611	170,090
Cost of goods sold	250,524	252,477	231,732	178,867	154,459
Gross profit	52,956	38,673	30,129	25,744	15,631
Selling, general, and administrative expenses	23,087	21,423	21,073	16,127	14,794
Operating income or (loss)	29,869	17,250	9,056	9,617	837
Interest expense	***	***	***	***	***
Other expense, net	***	***	***	***	***
Net income or (loss) before income taxes	***	***	***	***	***
Depreciation and amortization	***	***	***	***	***
Cash flow[1]	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold	82.6	86.7	88.5	87.4	90.8
Gross profit	17.4	13.3	11.5	12.6	9.2
Selling, general, and administrative expenses	7.6	7.4	8.0	7.9	8.7
Operating income or (loss)	9.8	5.9	3.5	4.7	0.5
Net income or (loss) before income taxes	***	***	***	***	***
	Number of firms reporting				
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***
Data	6	6	6	6	6

[1] Cash flow is defined as net income or loss plus depreciation and amortization.

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

Table 8
Income-and-loss experience of U.S. producers on their welded A-312 pipe operations, accounting years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Value (1,000 dollars)				
Net sales	147,179	142,298	133,001	100,458	79,813
Cost of goods sold	117,256	120,033	116,225	86,710	72,097
Gross profit	29,923	22,265	16,776	13,748	7,716
Selling, general, and administrative expenses	12,332	10,427	10,137	7,235	6,322
Operating income or (loss)	17,591	11,838	6,639	6,513	1,394
Interest expense	***	***	***	***	***
Other expense, net	***	***	***	***	***
Net income or (loss) before income taxes	***	***	***	***	***
Depreciation and amortization	***	***	***	***	***
Cash flow[1]	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold	79.7	84.4	87.4	86.3	90.3
Gross profit	20.3	15.6	12.6	13.7	9.7
Selling, general, and administrative expenses	8.4	7.3	7.6	7.2	7.9
Operating income or (loss)	12.0	8.3	5.0	6.5	1.7
Net income or (loss) before income taxes	***	***	***	***	***
	Number of firms reporting				
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***
Data	5	5	6	5	6

[1] Cash flow is defined as net income or loss plus depreciation and amortization.

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

margins were 12.0 percent in 1988, 8.3 percent in 1989, and 5.0 percent in 1990. Net sales of $79.8 million for the nine-month period ended September 30, 1991 were 20.6 percent less than the net sales of $100.5 million for the nine-month period ended September 30, 1990. The operating income was $6.5 million in the 1990 interim period compared to $1.4 million in interim 1991. The operating income margin as a percent of sales was 6.5 percent in interim 1990 and 1.7 percent in interim 1991.

Net sales, operating income (loss), and operating income (loss) margins for welded A-312 pipes are presented in table 9 for the six producers separately. ***.[32] ***.

Table 9
Income-and-loss experience of U.S. producers on their welded A-312 pipe operations, by firms, accounting years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	*	*	*	*	*

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

The income-and-loss experience on an average per-ton basis for welded A-312 pipes is presented in table 10. The sales value increased 17.8 percent from $3,989 in 1988 to $4,698 in 1989, and decreased 16.0 percent to $3,944 in 1990 (lower than the average sales price in 1988). The cost of goods sold decreased by $516 per ton in 1990 compared to 1989, but the average sales price decreased by $754 per ton, which contributed to a reduction of the operating income margin from 8.3 percent in 1989 to 5.0 percent in 1990. The operating income per ton was $477 in 1988, $391 in 1989, and $197 in 1990. The sales value decreased 10.4 percent from $3,999 in interim 1990 to $3,582 in interim 1991. The combined companies reduced cost of goods sold by $216 per ton from interim 1990 to interim 1991, but the average sales price decreased by $417 per ton, contributing to a sharp reduction of the operating income margin of 6.5 percent in interim 1990 to 1.7 percent in interim 1991. The operating income was $259 per ton in interim 1990 and $63 per ton in interim 1991. Welded A-312 pipes are sold in various sizes and lengths and, therefore, the product mix may have an effect on any per-ton analysis.

Operations on Welded A-312 Pipes and Welded A-249 and A-269 Tubes Combined

Income-and-loss data for the six producers[33] of combined welded A-312 pipe and welded A-249 and A-269 tube operations are shown in table 11. Net sales decreased 2.1 percent from $181.6 million in 1988 to $177.9 million in 1989, and decreased an additional 11.1 percent to $158.1 million in 1990. Operating income was $20.9 million in 1988, $13.4 million in 1989, and $6.6 million in 1990. Operating income margins were 11.5 percent in 1988, 7.5 percent in 1989, and 4.2 percent in 1990. Net sales of $98.9 million for the

[32] ***.
[33] ***.

Table 10
Income-and-loss experience (on a per-ton basis) of U.S. producers on their welded A-312 pipe operations, accounting years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Quantity (tons)				
Net sales	36,898	30,287	33,720	25,121	22,283
	Value (per ton)				
Net sales	$3,989	$4,698	$3,944	$3,999	$3,582
Cost of goods sold	3,178	3,963	3,447	3,452	3,236
Gross profit	811	735	498	547	346
Selling, general, and administrative expenses	334	344	301	288	284
Operating income or (loss)	477	391	197	259	63

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

nine-month period ended September 30, 1991, were 16.8 percent less than the net sales of $118.9 million for the nine-month period ended September 30, 1990. The operating income was $834,000 in the 1991 interim period compared to an operating income of $6.5 million in interim 1990. The operating income margin as a percent of sales was 5.5 percent in interim 1990 and 0.8 percent in interim 1991.

Operations on All Welded Stainless Steel Pipes

Income-and-loss data for the six producers[34] for all welded stainless steel pipe operations are shown in table 12. Net sales decreased 3.4 percent from $147.6 million in 1988 to $142.7 million in 1989, and decreased an additional 6.6 percent to $133.3 million in 1990. Operating income was $17.7 million in 1988, $11.9 million in 1989, and $6.7 million in 1990. Operating income margins were 12.0 percent in 1988, 8.4 percent in 1989, and 5.0 percent in 1990. Net sales of $80.2 million for the nine-month period ended September 30, 1991, were 20.4 percent less than the net sales of $100.7 million for the nine-month period ended September 30, 1990. The operating income was $1.5 million in the 1991 interim period compared to an operating income of $6.6 million in interim 1990. The operating income margin as a percent of sales was 6.5 percent in interim 1990 and 1.8 percent in interim 1991.

[34] ***.

Table 11
Income-and-loss experience of U.S. producers on their operations producing welded A-312 pipes and welded A-249 and A-269 tubes, accounting years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Value (1,000 dollars)				
Net sales	181,606	177,853	158,099	118,869	98,869
Cost of goods sold	145,833	151,431	139,476	103,692	90,077
Gross profit	35,773	26,422	18,623	15,177	8,792
Selling, general, and administrative expenses	14,917	12,997	12,056	8,682	7,958
Operating income or (loss)	20,856	13,425	6,567	6,495	834
Interest expense	***	***	***	***	***
Other expense, net	***	***	***	***	***
Net income or (loss) before income taxes	***	***	***	***	***
Depreciation and amortization	***	***	***	***	***
Cash flow[1]	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold	80.3	85.1	88.2	87.2	91.1
Gross profit	19.7	14.9	11.8	12.8	8.9
Selling, general, and administrative expenses	8.2	7.3	7.6	7.3	8.0
Operating income or (loss)	11.5	7.5	4.2	5.5	0.8
Net income or (loss) before income taxes	***	***	***	***	***
	Number of firms reporting				
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***
Data	6	6	6	6	6

[1] Cash flow is defined as net income or loss plus depreciation and amortization.

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

Table 12
Income-and-loss experience of U.S. producers on their operations producing all welded stainless steel pipes, accounting years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Value (1,000 dollars)				
Net sales	147,645	142,697	133,270	100,718	80,151
Cost of goods sold	117,619	120,317	116,420	86,898	72,329
Gross profit	30,026	22,380	16,850	13,820	7,822
Selling, general, and administrative expenses	12,368	10,455	10,155	7,255	6,349
Operating income or (loss)	17,658	11,925	6,695	6,565	1,473
Interest expense	***	***	***	***	***
Other expense, net	***	***	***	***	***
Net income or (loss) before income taxes	***	***	***	***	***
Depreciation and amortization	***	***	***	***	***
Cash flow[1]	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold	79.7	84.3	87.4	86.3	90.2
Gross profit	20.3	15.7	12.6	13.7	9.8
Selling, general, and administrative expenses	8.4	7.3	7.6	7.2	7.9
Operating income or (loss)	12.0	8.4	5.0	6.5	1.8
Net income or (loss) before income taxes	***	***	***	***	***
	Number of firms reporting				
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***
Data	5	5	6	5	6

[1] Cash flow is defined as net income or loss plus depreciation and amortization.

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

Operations on All Welded Stainless Steel Pipes and Tubes

Income-and-loss data for the six producers'[35] all welded stainless steel pipe and tube operations are shown in table 13. Net sales decreased 2.0 percent from $224.2 million in 1988 to $219.7 million in 1989, and decreased an additional 12.1 percent to $193.0 million in 1990. Operating income was $25.2 million in 1988, $18.2 million in 1989, and $8.1 million in 1990. Operating income margins were 11.2 percent in 1988, 8.3 percent in 1989, and 4.2 percent in 1990. Net sales of $123.5 million for the nine-month period ended September 30, 1991 were 16.7 percent less than the net sales of $148.2 million for the nine-month period ended September 30, 1990. The operating income was $1.3 million in the 1991 interim period compared to $8.8 million in interim 1990. The operating income margin as a percent of sales was 5.9 percent in interim 1990 and 1.0 percent in interim 1991.

At least one respondent in these investigations contends that whereas the petitioners allege that the financial performance of the welded A-312 pipe industry is indicative of injury, a recent Commission report on the steel industry in the United States[36] showed that stainless pipes and tubes was the single most profitable sector of the U.S. steel industry in 1990 and January-March 1991.[37] In order to investigate the apparent discrepancy in the two sets of data, staff compared the company-by-company financial data received in the subject investigations on Korea and Taiwan with the company-by-company data in the steel report, and note that any seeming discrepancies in the aggregate data exist mainly because of the following factors: (1) the product categories are not the same -- the data in the industry study include seamless stainless steel pipes and tubes; (2) the companies are not similar -- of the seven companies included in the industry study, only one (***) is also included in the data in this report; and (3) the time periods are not comparable -- the steel report covered 1990 and January-March 1991.

Capital Expenditures

Capital expenditures provided by the six producers for their establishments in which welded A-312 pipes and welded A-249 and A-269 tubes are produced and their operations on welded A-312 pipes, welded A-312 pipes and welded A-249 and A-269 tubes combined, all welded stainless steel pipes, and all welded stainless steel pipes and tubes are shown in table 14. Capital expenditures for welded A-312 pipes provided by *** producers[38] amounted to $*** in 1988, $*** in 1989, and $*** in 1990. Capital expenditures for welded A-312 pipes were $*** for the interim period of September 30, 1990 and *** to

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[35] ***.

[36] Steel Industry Annual Report on Competitive Conditions in the Steel Industry and Industry Efforts to Adjust and Modernize: Report to the President on Investigation No. 332-289 Under Section 332 of the Tariff Act of 1930, USITC Publication 2436, September 1991, Table J-6, p. J-6.

[37] E.g., testimony of Donald B. Cameron, transcript, p. 89, and postconference brief of Morrison & Foerster on behalf of three Korean producers, p. 13.

[38] ***.

Table 13
Income-and-loss experience of U.S. producers on their operations producing all welded stainless steel pipes and tubes, accounting years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Value (1,000 dollars)				
Net sales	224,230	219,690	193,011	148,210	123,533
Cost of goods sold	181,439	186,105	170,425	129,043	112,650
Gross profit	42,791	33,585	22,586	19,167	10,883
Selling, general, and administrative expenses	17,619	15,390	14,471	10,410	9,628
Operating income or (loss)	25,172	18,195	8,115	8,757	1,255
Interest expense	***	***	***	***	***
Other expense, net	***	***	***	***	***
Net income or (loss) before income taxes	***	***	***	***	***
Depreciation and amortization	***	***	***	***	***
Cash flow[1]	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold	80.9	84.7	88.3	87.1	91.2
Gross profit	19.1	15.3	11.7	12.9	8.8
Selling, general, and administrative expenses	7.9	7.0	7.5	7.0	7.8
Operating income or (loss)	11.2	8.3	4.2	5.9	1.0
Net income or (loss) before income taxes	***	***	***	***	***
	Number of firms reporting				
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***
Data	6	6	6	6	6

[1] Cash flow is defined as net income or loss plus depreciation and amortization.

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

Table 14
All welded stainless steel pipes and tubes: Capital expenditures by U.S. producers on their overall establishment operations and by products, accounting years 1988-90, January-September 1990, and January-September 1991

(In thousands of dollars)

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
Overall establishment.....	4,064	5,060	4,818	3,553	2,499
A-312 pipes.....	***	***	***	***	***
A-312 pipes and A-249 and A-269 tubes.....	***	***	***	***	***
All welded stainless steel pipes.....	***	***	***	***	***
All welded stainless steel pipes and tubes.....	2,734	4,512	3,434	2,260	2,047

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

$***[39] for the interim period of September 30, 1991. *** producers provided capital expenditures for overall operations, and *** for welded A-312 pipes, welded A-312 pipes and welded A-249 and A-269 tubes combined, all welded stainless steel pipes, and all welded stainless steel pipes and tubes.

Investment in Productive Facilities

The investment in productive facilities and the annual return on total assets for the producers[40] are presented in table 15 for operations on their overall establishments, welded A-312 pipes, welded A-312 pipes and welded A-249 and A-269 tubes combined, all welded stainless steel pipes, and all welded stainless steel pipes and tubes. The operating return on total assets for welded A-312 pipes for *** producers decreased each year, from *** percent in 1988 to *** percent in 1989 and to *** percent in 1990.

Research and Development Expenses

*** provided research and development expenses *** as presented in table 16. ***'s research and development expenditures for *** were $*** in 1988, $*** in 1989, and *** for 1990 and the interim periods.

[39] ***.
[40] ***.

Table 15
All welded stainless steel pipes and tubes: Value of assets[1] and return on assets of U.S. producers on their overall establishment operations and by products, accounting years 1988-90

Item	As of the fiscal year end--		
	1988	1989	1990
*	*	*	*

[1] ***.

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

Table 16
All welded stainless steel pipes and tubes: Research and development expenses of *** on its overall establishment operations and by products, accounting years 1988-90, January-September 1990, and January-September 1991

(In thousands of dollars)

Item				Jan.-Sept.--	
	1988	1989	1990	1990	1991
*	*	*	*	*	*

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

Impact of Imports on Capital and Investment

The Commission requested the U.S. producers to describe any actual or potential negative effects of imports of welded A-312 pipes from Korea and Taiwan on their growth, development and production efforts, investment, and ability to raise capital (including efforts to develop a derivative or improved version of the product). Their comments are presented in appendix D.

CONSIDERATION OF THE QUESTION OF THREAT OF MATERIAL INJURY

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

In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of any merchandise, the Commission shall consider, among other relevant factors[41]--

> (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 736, are also used to produce the merchandise under investigation,

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[41] 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.[42]

Items (I) and (IX) are not relevant to these investigations. 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 alleged 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) above); any other threat indicators, if applicable (item (VII) above); and any dumping in third-country markets, follows.

U.S. Importers' Inventories

Table 17 presents the end-of-period inventories of U.S. importers of welded stainless steel pipes and tubes. On the basis of quantity, the end-of-period inventories of welded A-312 pipes from Korea *** from *** in 1988 to *** in 1990. The end-of-period inventories of welded A-312 pipes from Korea *** in the interim periods. The end-of-period inventories of welded A-312 pipes from Taiwan increased 232 percent from 1988 to 1990, and increased by 122 percent in the interim periods.

---

[42] 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 17
Welded A-312 pipes: End-of-period inventories of U.S. importers, by sources, 1988-90, January-September 1990, and January-September 1991

(In short tons)

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
South Korea	0	0	***	***	***
Taiwan	313	372	1,040	879	1,949
Subtotal	313	372	***	***	***
Other sources	203	160	91	82	71
Total	516	532	***	***	***

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

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

The Commission requested information from counsel for producers of welded A-312 pipes in Korea and Taiwan.[43] The data supplied by counsel for the foreign producers are presented in tables 18, 19, and 20.

The Industry in Korea

According to counsel for Lucky Metals Corp. (Lucky Metals), Pusan Steel Pipe Corp. (Pusan), and Sammi Metal Products Co., Ltd. (Sammi), these three firms account for approximately 95 percent of both Korean production of welded A-312 pipes and exports of welded A-312 pipes to the United States.[44] Data on these producers are presented in table 18.

Reported capacity for the three firms increased by *** percent from 1988 to 1990, and increased *** percent during the interim periods. The increase in capacity was largely due to ***. Production of welded A-312 pipes increased *** percent from 1988 to 1990, and rose *** percent during the interim periods. Capacity utilization fell from *** percent in 1988 to *** percent in 1990 and fell from *** percent in January-September 1990 to *** percent in January-September 1991.

Home market shipments increased by *** percent from 1988 to 1990, and increased *** percent during the interim periods. Korean shipments of welded A-312 pipes to the United States increased *** from 1988 to 1990. Compared to

[43] The Commission also requested additional information from the U.S. Embassy in Seoul and the American Institute in Taiwan (AIT). However, the data supplied by counsel for the foreign producers appear to be more product-specific. Therefore, the data supplied by the U.S. embassy in Seoul and the AIT are not presented here.

[44] Transcript, p. 113.

Table 18
Welded A-312 pipes: Korean capacity, production, shipments, and end-of-period inventories, 1988-90, January-September 1990, January-September 1991, and projected 1991-92

(In short tons, unless otherwise specified)

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991	Projected-- 1991	Projected-- 1992
	*	*	*	*	*	*	*

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

Source: Compiled from data supplied by counsel for Lucky Metals, Pusan, and Sammi.

interim 1990, shipments to the United States increased *** percent in interim 1991. Korea's exports to other countries rose *** percent from 1988 to 1990, but fell *** percent during the interim periods.

End-of-period inventories in Korea increased *** percent from 1988 to 1990. Inventories at the end of September 1991 were *** percent larger than those at the end of September 1990. The ratio of end-of-period inventories to total shipments was *** percent in 1990 and *** percent in interim 1991.

The Industry in Taiwan

According to counsel for Ta Chen Stainless Pipe Co., Ltd. (Ta Chen), and counsel for Cheng Mien Industries (CMI), Jaung Yaunn Enterprise Co., Ltd. (JYE), and Yeun Chyang Industrial Co., Ltd. (YCI), these four firms account for approximately 75 percent of both Taiwan production of welded A-312 pipes and exports of welded A-312 pipes to the United States. Data on these producers are presented in table 19, and data on producers in Taiwan and Korea combined are presented in table 20.

Reported capacity for the four firms increased by *** percent from 1988 to 1990, and increased *** percent during the interim periods. CMI reported that it ***. Production of welded A-312 pipes increased *** percent from 1988 to 1990, and rose *** percent during the interim periods. Capacity utilization rose from *** percent in 1988 to *** percent in 1990 and rose from *** percent in January-September 1990 to *** percent in January-September 1991.

Home market shipments increased by *** percent from 1988 to 1990, and increased *** percent during the interim periods. Taiwan shipments of welded A-312 pipes to the United States increased *** percent from 1988 to 1990. Compared to interim 1990, shipments to the United States increased *** percent

Table 19
Welded A-312 pipes: Taiwan's capacity, production, shipments, and end-of-period inventories, 1988-90, January-September 1990, January-September 1991, and projected 1991-92

(In short tons, unless otherwise specified)

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991	Projected-- 1991	Projected-- 1992
	*	*	*	*	*	*	*

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

Source: Compiled from data supplied by counsel for CMI, JYE, Ta Chen, and YCI.

in interim 1991. Taiwan's exports to other countries rose *** percent from 1988 to 1990, and rose *** percent during the interim periods.

End-of-period inventories in Taiwan increased *** percent from 1988 to 1990. Inventories at the end of September 1991 were *** percent smaller than those at the end of September 1990. The ratio of end-of-period inventories to total shipments was *** percent in 1990 and *** percent in interim 1991.

Dumping in Third Countries

On April 2, 1991 Canada imposed antidumping duties of 18.2 percent on imports from Taiwan of welded stainless steel pipes of certain sizes and wall thicknesses with the specification A-312, SA-312,[45] or equivalent specifications.[46]

Operation of the Voluntary Restraint Arrangement With Respect to Korea

Stainless steel pipe exports from Korea to the United States have been subject to voluntary restraint arrangements (VRAs) since October 1, 1984. As part of the program to bring the VRAs into effect, U.S. producers withdrew pending unfair trade petitions and the U.S. Government suspended antidumping and countervailing duties on covered products.

[45] The specification SA-312 is prescribed by The American Society of Mechanical Engineers (ASME).

[46] Petition, Exhibits 11 and 12.

Table 20
Welded A-312 pipes: Korea and Taiwan cumulated capacity, production, shipments, and end-of-period inventories, 1988-90, January-September 1990, January-September 1991, and projected 1991-92

(In short tons, unless otherwise specified)

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991	Projected-- 1991	Projected-- 1992
Capacity:							
Korea	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***
Total	28,882	32,230	42,247	29,675	33,708	45,994	44,894
Production:							
Korea	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***
Total	18,040	17,832	30,382	22,072	26,191	33,155	32,861
Capacity utilization (percent):							
Korea	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***
Average	62.5	55.3	71.9	74.3	77.7	72.1	73.2
Shipments:							
Home market:							
Korea	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***
Total	9,509	7,386	11,327	8,256	11,109	14,778	15,395
Exports to--							
United States:							
Korea	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***
Total	4,523	4,882	11,979	8,424	9,256	11,237	7,009
All other markets:							
Korea	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***
Total	3,393	4,312	6,024	4,175	5,366	7,091	10,233
Total exports:							
Korea	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***
Total	7,916	9,194	18,003	12,599	14,621	18,327	17,243
Total shipments:							
Korea	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***
Total	17,425	16,581	29,330	20,855	25,730	33,106	32,638
End-of-period inventories:							
Korea	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***
Total	2,495	3,792	4,639	4,709	4,870	4,518	4,612

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

Source: Compiled from data supplied by counsel for CMI, JYE, Lucky Metals, Pusan, Sammi, Ta Chen, and YCI.

The VRA program was to have ended September 30, 1989; however, in July 1989, as part of the Steel Trade Liberalization Program (STLP), the President announced that VRAs would be extended for 2-1/2 years, terminating on March 31, 1992. Export limits under the STLP were designed to be progressively more liberal for those countries signing Bilateral Consensus Agreements (BCAs), which included Korea. Under the consensus agreements, countries agreed to prohibit most steel subsidies, to work to reduce and eliminate tariffs and other market-access barriers in the steel area, and to work in the Uruguay Round of trade negotiations to incorporate these commitments into a more global agreement.[47]

Under the VRAs, governments agreed to limit their steel exports to the U.S. market over specified time periods. Foreign governments issue to their industries export certificates which must be presented to U.S. Customs officials upon entering the products into the United States. Some of the VRAs set fixed tonnage limits. Others, such as the VRA with Korea, limit exports to a certain share of U.S. domestic consumption, based on consumption forecasts. Since final consumption can only be determined following the termination of a period, adjustments for overshipping or undershipping may be carried forward to a subsequent period. The VRAs also provide for flexibility, wherein a limited amount of tonnage can be shifted between categories or carried forward to a subsequent period, upon consultation with the United States.

In addition to the above, it may be difficult to draw a conclusion as to how "binding" Korea's VRA has been on the specific subject products because the VRA subcategory "other pipe and tube" includes tube products, seamless pipe, nonstainless pipe, and other pipe products not subject to these investigations. Nevertheless, Korea's restraint limits and exports for other pipe and tube for the relevant periods are shown in the following tabulation, based on export certificate data and final consultations with respective governments for each period conducted by Commerce's Office of Agreements Compliance (in metric tons):

Other pipe and tube:[1] VRA restraint period					
1988		Jan.-Sept. 1989		Oct. 1989-Dec. 1990	
12 months		9 months		15 months	
Exports to U.S.	Adjusted ceiling	Exports to U.S.	Adjusted ceiling	Exports to U.S.	Adjusted ceiling
62,989	68,799	14,389	62,936	54,924	91,233

[1] Includes all pipe and tube products except structural pipe, oil country tubular goods, and standard pipe.

[47] In the fall of 1990, these BCA commitments became the basis for the Multilateral Steel Agreement (MSA) negotiations, which are ongoing and currently include participants accounting for over 80 percent of the world's steel exports.

Based on the above data, the extent to which Korea has filled its VRA sub-category restraint limits on other pipe and tube (including welded stainless pipe) is shown in the following tabulation (in percent):

Other pipe and tube:[1] VRA restraint period		
1988	Jan.-Sept. 1989	Oct. 1989-Dec. 1990
12 months	9 months	15 months
91.6	22.9	60.2

[1] Includes all pipe and tube products except structural pipe, oil country tubular goods, and standard pipe.

The Government of the Republic of Korea imposed a unilateral embargo on all exports of stainless steel pipe and tube to the United States from April 22, 1991, to August 21, 1991.[48] When the embargo was lifted, Korea announced that, during 1991, it would unilaterally limit to 3,500 metric tons its exports to the United States of all stainless steel pipe and tube.[49]

Unilateral Agreement with Respect to Taiwan

There is no VRA between Taiwan and the United States. However, through letters dated November 16, 1989, and December 7, 1990, from the Coordination Council for North American Affairs (CCNAA) to the American Institute in Taiwan, the CCNAA established unilateral restraints on steel exports to the United States. These self-restraints, which extend through March 31, 1992, include a specific limit of 800 tons per month for stainless steel pipe and tube. It may be difficult to draw a conclusion as to how "binding" Taiwan's unilateral restraint has been on the specific subject products because the subcategory "stainless steel pipe and tube" includes tube products, seamless pipe, and other pipe products not subject to these investigations. Nevertheless, U.S. imports of stainless pipe and tube from Taiwan for the 1988-90 and January-September 1990/1991 time periods are shown in the following tabulation, based on Commerce data (in short tons):

U.S. imports of stainless pipe and tube from Taiwan				
1988	1989	1990	Jan.-Sept. 1990	Jan.-Sept 1991
6,809	3,135	8,216	5,996	7,231

Based on the above data, and assuming that Taiwan's 800 ton-per-month limit on exports to the United States of stainless pipe and tube is equivalent to an annual limit of 9,600 tons, the extent to which Taiwan has filled its unilateral restraint limit in this subcategory is shown in the following tabulation (in percent):

---

[48] Korea allowed exporters of stainless steel pipe and tube a 2-week grace period, until May 5, 1991, to allow for export of products that were previously readied for shipment.

[49] Postconference brief of the Korean respondents, p. 22.

U.S. imports of stainless pipe and tube from Taiwan				
1988	1989	1990	Jan.-Sept. 1990	Jan.-Sept 1991
70.9	32.7	85.6	83.3	100.4

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

U.S. Imports

The Commission received import data in response to its questionnaire to U.S. importers, but the resulting data coverage was incomplete, accounting for approximately 70 percent and 60 percent, respectively, of estimated total U.S. imports from Korea and Taiwan in 1990. Accordingly, the import data presented in table 21 consist of official U.S. import statistics of the U.S. Department of Commerce. However, even these data have some limitations. For example, the official statistics encompass not only welded A-312 pipes, but also include unknown quantities of non-A-312 welded stainless steel pipes and of welded stainless steel tubes. For the purposes of these preliminary investigations it is assumed that welded A-312 pipes account for 100 percent of U.S. imports under the HTS subheadings reserved for welded stainless steel pipes and tubes; although this may somewhat overstate the amount of imports of welded A-312 pipes, it is believed that imports of non-A-312 pipes and of welded stainless steel tubes are quite small.[50]

Korea

Imports of welded A-312 pipes from Korea rose 1,813 percent during 1988-90 and increased 136 percent in January-September 1991 compared with the corresponding period of 1990. The value of these imports rose 1,581 percent during 1988-90 and increased 127 percent in interim 1991 compared with interim 1990. The unit value for A-312 imports from Korea decreased from $3,382 per short ton in 1988 to $2,976 per short ton in 1990, then decreased in interim 1991 to $2,961 per short ton.

Taiwan

Imports of welded A-312 pipes from Taiwan increased irregularly by 19 percent during 1988-90 and increased by 22 percent during the interim periods. The value of these imports increased by 18 percent during 1988-90 and increased by 13 percent in interim 1991 compared with interim 1990. The unit value for welded A-312 imports from Taiwan fell from $3,370 per short ton in

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[50] The HTS subheadings in the petition, in the Commission's notice of institution, and in Commerce's notice of initiation exclude certain welded stainless steel pipes and tubes of over 406.4 mm. Although welded A-312 pipes of over 406.4 mm are included within the scope of these investigations, imports of certain products over 406.4 mm are not included in the official statistics presented herein. However, imports of products over 406.4 mm are believed to be very small.

Table 21
Welded A-312 pipes: U.S. imports, by sources, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Quantity (short tons)				
Korea	174	444	3,328	1,941	4,574
Taiwan	6,676	3,095	7,979	5,832	7,126
Subtotal	6,850	3,539	11,307	7,772	11,700
Other sources	11,586	9,819	10,738	7,382	5,991
Total	18,437	13,357	22,045	15,154	17,691
	Value (1,000 dollars)				
Korea	589	1,422	9,906	5,976	13,545
Taiwan	22,500	13,271	26,531	20,058	22,604
Subtotal	23,089	14,693	36,437	26,034	36,148
Other sources	38,111	41,377	40,271	27,768	23,726
Total	61,200	56,070	76,708	53,802	59,875
	Unit value (per ton)				
Korea	$3,382	$3,206	$2,976	$3,079	$2,961
Taiwan	3,370	4,288	3,325	3,440	3,172
Average	3,370	4,152	3,222	3,350	3,090
Other sources	3,289	4,214	3,750	3,761	3,960
Average	3,320	4,198	3,480	3,550	3,384

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.

1988 to $3,325 per short ton in 1990, then further decreased in interim 1991 to $3,172 per short ton.

Total Imports

Cumulative imports of welded A-312 pipes from Korea and Taiwan increased irregularly by 65 percent from 1988 to 1990, and by 51 percent during the interim periods. The unit value for these cumulative imports of welded A-312 pipes from Korea and Taiwan fell from $3,370 per short ton in 1988 to $3,222 per short ton in 1990, then decreased in interim 1991 to $3,090 per short ton.

Imports of welded A-312 pipes from all other countries decreased irregularly by 7 percent during 1988-90, and fell by 19 percent in January-September 1991 compared with the corresponding period of 1990. In terms of value, welded A-312 pipes imported from all other countries increased by 6

percent from 1988 to 1990, and fell 15 percent in January-September 1991 compared with the corresponding period of 1990. The unit value for imports of welded A-312 pipes from all other countries rose from $3,289 per short ton in 1988 to $3,750 per short ton in 1990, then increased in interim 1991 to $3,960 per short ton.[51]

Market Penetration of Alleged LTFV Imports

Table 22 presents data on imports of welded A-312 pipes from Korea, Taiwan, and all other countries as a share of apparent U.S. consumption of the following product categories: welded A-312 pipes; welded A-312 pipes plus A-249 tubes and A-269 tubes; all welded stainless steel pipes; and all welded stainless steel pipes and tubes.

Korea

Korea's share of apparent U.S. consumption (based on quantity) of welded A-312 pipes increased from 0.3 percent in 1988 to 5.7 percent in 1990, and was 4.5 percent in January-september 1990 and 10.9 percent in January-September 1991. U.S. imports of welded A-312 pipes from Korea (based on quantity) as a share of apparent U.S. consumption of the other product categories in table 22 (welded A-312 pipes plus welded A-249 and A-269 tubes, all welded stainless steel pipes, and all welded stainless steel pipes and tubes) also increased between 1988 and 1990 and between the interim periods. All trends were similar for market shares based on value.

Taiwan

Taiwan's share of apparent U.S. consumption (based on quantity) of welded A-312 pipes increased irregularly from 11.4 percent in 1988 to 13.6 percent in 1990, and was 13.7 percent in January-September 1990 and 17.0 percent in January-September 1991. U.S. imports of welded A-312 pipes from Taiwan (based on quantity) as a share of apparent U.S. consumption of the other product categories in table 22 (welded A-312 pipes plus welded A-249 and A-269 tubes, all welded stainless steel pipes, and all welded stainless steel pipes and tubes) also increased between 1988 and 1990 and between the interim periods. All trends were similar for market shares based on value.

Korea and Taiwan, Cumulated

Korea and Taiwan's combined share of apparent U.S. consumption (based on quantity) of welded A-312 pipes was 11.7 percent in 1988, 7.5 percent in 1989, 19.3 percent in 1990, 18.2 percent in January-September 1990, and 27.9 percent in January-September 1991. U.S. imports of welded A-312 pipes from Korea and Taiwan (based on quantity) as a share of apparent U.S. consumption of the other product categories in table 22 (welded A-312 pipes plus welded A-249 and A-269 tubes, all welded stainless steel pipes, and all welded stainless steel

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[51] ***.

Table 22
Welded A-312 pipes: U.S. imports' share of apparent U.S. consumption, by products, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Share of the quantity of U.S. consumption (percent)				
Welded A-312 pipes:					
U.S. imports from--					
Korea	.3	.9	5.7	4.5	10.9
Taiwan	11.4	6.6	13.6	13.7	17.0
Subtotal	11.7	7.5	19.3	18.2	27.9
Other sources	19.7	20.9	18.4	17.3	14.3
Total	31.4	28.4	37.7	35.5	42.2
A-312 pipes, A-249 tubes, and A-269 tubes:					
U.S. imports from--					
Korea	.3	.8	5.0	4.0	9.6
Taiwan	9.8	5.6	12.1	12.1	14.9
Subtotal	10.1	6.4	17.1	16.1	24.5
Other sources	17.1	17.7	16.3	15.3	12.6
Total	27.2	24.0	33.4	31.4	37.1
All welded austenitic pipes:					
U.S. imports from--					
Korea	.3	.9	5.6	4.5	10.7
Taiwan	11.1	6.4	13.4	13.4	16.7
Subtotal	11.4	7.3	18.9	17.8	27.4
Other sources	19.3	20.3	18.0	16.9	14.0
Total	30.7	27.7	36.9	34.8	41.4
All welded austenitic pipes and tubes:					
U.S. imports from--					
Korea	.2	.6	4.1	3.2	7.9
Taiwan	7.6	4.2	9.9	9.7	12.3
Subtotal	7.8	4.8	14.0	12.9	20.1
Other sources	13.2	13.3	13.3	12.3	10.3
Total	21.1	18.1	27.3	25.2	30.5

Table is continued on the following page.

Table 22--Continued
Welded A-312 pipes: U.S. imports' share of apparent U.S. consumption, by products, 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Share of the value of U.S. consumption (percent)				
Welded A-312 pipes:					
U.S. imports from--					
Korea	.3	.7	4.4	3.6	9.1
Taiwan	10.0	6.1	11.9	12.0	15.2
Subtotal	10.3	6.8	16.3	15.6	24.3
Other sources	17.0	19.1	18.1	16.6	16.0
Total	27.3	25.9	34.4	32.2	40.3
A-312 pipes, A-249 tubes, and A-269 tubes:					
U.S. imports from--					
Korea	.2	.6	4.0	3.2	8.0
Taiwan	8.7	5.3	10.7	10.8	13.4
Subtotal	9.0	5.8	14.6	14.0	21.5
Other sources	14.8	16.4	16.2	15.0	14.1
Total	23.7	22.3	30.8	29.0	35.6
All welded austenitic pipes:					
U.S. imports from--					
Korea	.3	.6	4.3	3.5	8.9
Taiwan	9.8	5.9	11.6	11.7	14.8
Subtotal	10.0	6.6	15.9	15.2	23.7
Other sources	16.6	18.5	17.6	16.2	15.6
Total	26.6	25.1	33.5	31.4	39.3
All welded austenitic pipes and tubes:					
U.S. imports from--					
Korea	.2	.5	3.4	2.7	6.9
Taiwan	7.3	4.4	9.2	9.2	11.5
Subtotal	7.4	4.9	12.6	11.9	18.5
Other sources	12.3	13.7	13.9	12.7	12.1
Total	19.7	18.5	26.5	24.6	30.6

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

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

pipes and tubes) also increased between 1988 and 1990 and in the interim periods. All trends were similar for market shares based on value.

Prices

Market Characteristics

Demand for welded A-312 pipes depends mainly on the general level of industrial activity in process industries requiring the transfer of corrosive liquids, solids, and gases such as chemicals, pulp and paper, food, and pharmaceuticals. Stainless steel products such as A-778 pipe, seamless A-312 pipe, and welded and seamless tube, may be substituted for welded A-312 pipes in certain applications. However, producers report that for the applications where welded A-312 pipe is specified, there are no cost-effective substitutes.

Three of the responding producers sell welded A-312 pipes mainly on an f.o.b. mill basis while five producers commonly sell on both an f.o.b. and a delivered basis depending on the quantities involved in the transaction. For example, *** sells on an f.o.b. basis for quantities up to 10,000 lbs and on a delivered basis for quantities over 10,000 lbs. All of the responding importers sell mainly on a U.S. port basis, although two importers reported that sales of large quantities may also be on a delivered basis.

Six of the eight producers distribute price lists that are used as a base to determine discounts based on quantity purchased and current market prices. Five of these producers reported that they typically discount from these price lists. *** reported that during 1988 its discounts ranged from *** to *** percent but by 1991 these discounts had increased to as much as *** percent. Only one importer reported publishing a price list although three use U.S. manufacturers' price lists. Other importers base their quotes on current market prices.

Most producers sell little or none of the product on a contract basis, although *** sells approximately *** percent on contract. Lead times between a spot order and delivery to a customer range from a few days for shipments from inventory to 6-10 weeks for shipments of special orders that cannot be filled by existing inventory.

Thirteen of the importers sell 5 percent or less on a contract basis, while three importers, ***, sell exclusively on a contract basis. Lead times for spot orders range from less than a week for shipments from inventory to 2-4 months for shipment for deliveries from foreign producers.

All of the U.S. producers reported that they sell welded A-312 pipes throughout the continental United States. The majority of the importers also sell to a national market, although three sell only on the West coast and one sells only in the Southeast. Most importers of welded A-312 pipes are trading companies that import for resale, usually to unrelated distributors. Transportation costs within the United States account for only a small

percentage of the total delivered cost of welded A-312 pipes, between 1 and 3 percent for the majority of importers and producers.[52]

The majority of importers stated that non-price factors such as quality and delivery time influence purchasing decisions somewhat, whereas most of the producers said that non-price factors only influence purchasing decisions a little. When asked specifically about quality, most producers and importers said that quality differences between the U.S. product and imports were not a major factor affecting domestic sales and stated that the U.S., Taiwan, and Korean products could be used interchangeably. However, one producer, ***, reported that quality differences between imported and domestic pipes were significant and that the domestic product was of higher quality than imports. Also, two importers indicated that the Taiwan product is of lower quality than the domestic and Korean welded A-312 pipe. One of these, ***, stated that it inventories only the domestic and Korean products due to the inferior quality of the Taiwan imports.

Questionnaire Price Data

The Commission requested U.S. producers and importers to provide quarterly pricing data for sales to distributors of three types of welded A-312 pipes during the period January 1988-September 1991. Although there are many sizes of welded A-312 pipes, producers and importers agreed that the following three products were representative of the U.S. market for imported and domestically produced welded A-312 pipes.

Product 1: ASTM-A-312, welded, grade AISI 304/304L, 2-inch schedule 40

Product 2: ASTM-A-312, welded, grade AISI 304/304L, 4-inch schedule 40

Product 3: ASTM-A-312, welded, grade AISI 304/304L, 1-inch schedule 40

Quantity and price data were requested from each producer and importer for their largest sale, total quantity, and total value shipped to unrelated U.S. distributors in each quarter. Importers were instructed to report separately for sales of imports from Korea and Taiwan. Five U.S. producers and seven importers provided pricing data.

Price Trends

Weighted-average f.o.b. prices for products 1-3 are shown in tables 23-25. Prices generally increased throughout 1988 and the first half of 1989 and declined thereafter, although not to original levels.

Prices were highest during 1988 and 1989. This coincided with high prices for two of the major stainless steel inputs, nickel and chrome. Increases in demand for stainless steel in late 1987 combined with disruptions

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[52] One importer ***.

Table 23
Weighted-average 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, January 1988-September 1991

Period	United States Price	Korea Price	Korea Margin	Taiwan Price	Taiwan Margin
	Per short ton	Per short ton	Percent	Per short ton	Percent
1988:					
Jan.-March...	$2,586	(1)	(2)	$2,346	9.3
April-June....	3,139	(1)	(2)	2,575	18.0
July-Sept.....	3,822	(1)	(2)	3,051	20.2
Oct.-Dec.....	4,018	(1)	(2)	4,169	(3.8)
1989:					
Jan.-March....	4,071	(1)	(2)	4,034	0.9
April-June....	4,268	(1)	(2)	5,106	(19.6)
July-Sept.....	4,054	(1)	(2)	3,865	4.7
Oct.-Dec.....	3,845	(1)	(2)	3,870	(0.7)
1990:					
Jan.-March....	3,566	$***	***	3,195	10.4
April-June....	3,337	***	***	2,966	11.1
July-Sept.....	3,404	***	***	2,967	12.8
Oct.-Dec.....	3,389	***	***	3,125	7.8
1991:					
Jan.-March....	3,399	***	***	2,923	14.0
April-June....	3,351	***	***	2,947	12.0
July-Sept.....	3,000	(1)	(2)	2,921	2.6

[1] Data not available.
[2] Margins not calculated.

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

in the production of nickel caused nickel prices to rise from $3 per pound in December 1987 to $8 per pound in December 1988, with the largest jump in prices occurring between February and April 1988. Base prices of stainless steel increased and surcharges on nickel were introduced. In addition, surcharges on chromium began in May 1988.[53] These surcharges were in effect until the second quarter of 1989.

Prices of domestic products 1 and 3 peaked during the second quarter of 1989, increasing 65 percent and 51 percent respectively from the beginning of 1988. The price of product 2 increased 49 percent from the first quarter of 1988 until the third quarter of 1989. After mid-1989, the three products decreased in price irregularly. Prices of domestic products 1, 2, and 3 were

[53] Annual Survey on Certain Stainless Steel and Alloy Tool Steel, USITC Pub. 2173, March 1989.

Table 24
Weighted-average f.o.b. prices for sales to distributors of Product 2 reported by U.S. producers and importers, and margins of underselling (overselling), by quarters, January 1988-September 1991

Period	United States Price	Korea Price	Korea Margin	Taiwan Price[3]	Taiwan Margin
	Per short ton	Per short ton	Percent	Per short ton	Percent
1988:					
Jan.-March...	$2,620	([1])	([2])	$2,662	(1.6)
April-June....	2,824	([1])	([2])	2,220	21.4
July-Sept.....	3,316	([1])	([2])	***	***
Oct.-Dec.....	3,862	([1])	([2])	***	***
1989:					
Jan.-March....	3,716	([1])	([2])	***	***
April-June....	3,747	([1])	([2])	***	***
July-Sept.....	3,899	([1])	([2])	3,884	0.4
Oct.-Dec.....	3,694	$***	***	4,153	(12.4)
1990:					
Jan.-March....	3,270	([1])	([2])	3,049	6.7
April-June....	3,303	***	***	3,250	1.6
July-Sept.....	3,262	***	***	3,019	7.5
Oct.-Dec.....	3,185	***	***	2,933	7.9
1991:					
Jan.-March....	3,035	***	***	2,781	8.4
April-June....	3,054	***	***	2,883	5.6
July-Sept.....	2,870	***	***	2,926	(2.0)

[1] Data not available.
[2] Margins not calculated.
[3] Only one importer with relatively high overall prices reported prices for July-Sept 1988 to April-June 1989.

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

16, 9, and 13 percent higher, respectively, in September 1991 than in the beginning of the period for which prices were requested.

Prices of the imports from Taiwan followed a similar trend to those of the U.S. product. The price of product 1 peaked in the second quarter of 1989. However, prices of products 2 and 3 reached a high earlier, in late 1988, and then declined irregularly thereafter. Prices at the end of the period (the third quarter of 1991) were 24 percent higher for product 1, 10 percent higher for product 2, and 27 percent higher for product 3 than in the first quarter of 1988.

Only three importers reported prices for sales of Korean welded A-312 pipes and only for the last quarter of 1989, for 1990, and for 1991. Two of the importers, ***, did not import Korean welded A-312 pipes prior to 1990.

Table 25
Weighted-average f.o.b. prices for sales to distributors of Product 3 reported by U.S. producers and importers, and margins of underselling (overselling), by quarters, January 1988-September 1991

Period	United States Price	Korea		Taiwan	
		Price	Margin	Price	Margin
	Per short ton	Per short ton	Percent	Per short ton	Percent
1988:					
Jan.-March...	$3,169	(1)	(2)	$2,560	19.2
April-June....	3,468	(1)	(2)	3,195	7.9
July-Sept.....	4,725	(1)	(2)	4,787	(1.3)
Oct.-Dec.....	4,763	(1)	(2)	4,770	(0.1)
1989:					
Jan.-March....	4,601	(1)	(2)	4,398	4.4
April-June....	4,772	(1)	(2)	4,370	8.4
July-Sept.....	4,391	(1)	(2)	3,924	10.6
Oct.-Dec.....	4,219	(1)	(2)	4,066	3.6
1990:					
Jan.-March....	4,368	(1)	(2)	4,002	8.4
April-June....	4,304	(1)	(2)	3,508	18.5
July-Sept.....	4,141	$***	***	3,526	14.9
Oct.-Dec.....	3,962	***	***	3,388	14.5
1991:					
Jan.-March....	3,758	***	***	3,301	12.2
April-June....	3,815	***	***	3,180	16.6
July-Sept.....	3,598	***	***	3,262	9.3

[1] Data not available.
[2] Margins not calculated.

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

Prices of the three products were variable over the period for which data were reported.

Price Comparisons

U.S. weighted-average f.o.b. prices were compared to prices of the Korean and Taiwan imports for each of the three products during each of the quarters in which data was reported. For the imports from Taiwan, underselling was present in 33 out of 45 possible quarterly comparisons, with margins ranging from 0.4 percent to 30.5 percent. Underselling occurred for each of the products during every quarter of 1990 and 1991 except for product 2 during

July-September 1991. In the 12 cases of overselling, margins ranged from 0.1 percent to *** percent.[54]

There were 20 price comparisons between Korean and U.S.-produced products. The Korean products showed underselling for 16 of the 20 quarters in which data were available. Margins of underselling ranged from *** percent to *** percent. There were 3 cases of overselling for product 2, with margins ranging from *** percent to *** percent. Prices of the Korean and the U.S.-produced product 2 were about the same in ***.

Exchange Rates

Quarterly data reported by the International Monetary Fund indicate that the currencies of the two countries subject to these investigations appreciated in relation to the U.S. dollar over the period from January-March 1988 through July-September 1991 (table 26).[55] The nominal values of the Korean and Taiwan currencies appreciated by 5.2 percent and 6 percent, respectively. When adjusted for movements in producer price indexes in the United States and the specified countries, the real value of the Korean currency appreciated by 6.4 percent while the Taiwan currency depreciated by 3.2 percent during the periods for which data were collected.

Lost Sales and Lost Revenues

Six of the eight U.S. producers reported lost sales and/or lost revenues due to imports of welded A-312 pipe from Korea and Taiwan. Four of the producers either gave no details or did not provide enough information for the Commission to evaluate. Only two producers provided specific allegations. There was one case of lost revenues totaling $*** and two cases of lost sales totaling $***. The Commission was able to contact two of the three purchasers listed in the allegations.

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[54] The *** margins of overselling for product 2 in July-December 1988 and January-June 1989 are due to prices being supplied by only one importer whose prices were higher than the other importers' for all three products in almost every period.

[55] International Financial Statistics, December 1991.

Table 26
Exchange rates:[1] Indexes of nominal and real exchange rates of selected currencies, and indexes of producer prices in specified countries,[2] by quarters, January 1988-September 1991

Period	U.S. producer price index	Korea			Taiwan		
		Producer price index	Nominal exchange rate index	Real exchange rate index[3]	Producer price index	Nominal exchange rate index	Real exchange rate index[3]
1988:							
January-March.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
April-June.....	101.6	100.1	104.9	103.3	101.3	99.9	99.6
July-September.....	103.1	100.9	106.7	104.5	102.7	99.6	99.2
October-December...	103.5	100.9	110.9	108.0	102.6	100.9	99.9
1989:							
January-March.....	105.8	101.3	113.9	109.0	102.8	103.5	100.5
April-June.....	107.7	102.1	115.7	109.7	102.4	108.9	103.6
July-September.....	107.3	102.0	115.4	109.7	100.5	111.2	104.2
October-December...	107.7	102.5	114.6	109.1	99.6	110.2	101.9
1990:							
January-March.....	109.3	103.1	111.7	105.4	98.8	109.3	98.8
April-June.....	109.1	105.3	108.6	104.9	99.6	106.3	97.1
July-September.....	111.0	106.8	107.8	103.7	101.5	105.0	96.0
October-December...	114.4	109.6	107.9	103.4	102.6	105.1	94.2
1991:							
January-March.....	112.0	111.2	106.9	106.1	102.0	105.2	95.8
April-June.....	110.9	111.5	106.4	106.9	101.5	103.1	94.3
July-September[4].....	110.8	112.1	105.2	106.4	101.2	106.0	96.8

[1] Exchange rates expressed in U.S. dollars per unit of foreign currency.
[2] Producer price indexes--intended to measure final product prices--are based on period-average quarterly indexes presented in line 63 of the International Financial Statistics.
[3] The real exchange rate is derived from the nominal rate adjusted for relative movements in producer prices in the United States and the specified countries.
[4] Derived from Taiwanese exchange rate and price data reported for July only.

Note.--January-March 1988 = 100. The real exchange rates, calculated from precise figures, cannot in all instances be derived accurately from previously rounded nominal exchange rate and price indexes.

Source: International Monetary Fund, International Financial Statistics, December 1991.

APPENDIX A

FEDERAL REGISTER NOTICES

INTERNATIONAL TRADE COMMISSION

[Investigations Nos. 731-TA-540 and 541 (Preliminary)]

Certain Welded Stainless Steel Pipes From the Republic of Korea and Taiwan

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-540 and 541 (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 the Republic of Korea and Taiwan of certain welded stainless steel pipes,[1] provided for in subheadings 7306.40.10 and 7306.40.50 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value. The Commission must complete preliminary antidumping investigations in 45 days, or in this case by January 2, 1992.

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: November 18, 1991.

FOR FURTHER INFORMATION CONTACT: Elizabeth Haines (202-205-3200), 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 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 November 18, 1991, by Avesta Sandvik Tube, Inc.; Bristol Metals; Damascus Tubular Products; Trent Tube Division, Crucible Materials Corp.; and the United Steelworkers of America.

Participation in the Investigations and Public Service List

Persons (other than petitioners) wishing to participate in these 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 these 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 December 10, 1991, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Parties wishing to participate in the conference should contact Elizabeth Haines (202-205-3200) not later than December 5, 1991, 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 December 13, 1991, 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 investigation must be served on all other parties to the investigation (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: 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.

By order of the Commission.

Dated: November 20, 1991.

Edward G. Carroll,

Acting Secretary.

[FR Doc. 91-28357 Filed 11-25-91; 8:45 am]

BILLING CODE 7020-02-M

[1] The imported product subject to these investigations consists of welded austenitic (chromium-nickel) stainless steel pipes from the Republic of Korea and Taiwan that are covered by the American Society for Testing and Materials (ASTM) product designation A-312. Although the designation ASTM-312 covers both seamless and welded austenitic stainless steel pipes, only the welded form is subject to these investigations. The petition in these investigations states that the major applications for welded ASTM A-312 pipes are digester lines, blow lines, pharmaceutical lines, petrochemical stock lines, brewery process and transport lines, general food processing lines, automotive paint lines, and paper process machines. Imports of these goods are reported under statistical reporting numbers 7306.40.1000, 7306.40.5010, 7306.40.5030, 7306.40.5050, and 7306.40.5070.

[A-580-810, A-583-815]

Initiation of Antidumping Duty Investigations: Certain Welded Stainless Steel Pipes From the Republic of Korea and Taiwan

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

EFFECTIVE DATE: December 13, 1991.

FOR FURTHER INFORMATION CONTACT: Bill Crow, 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) 377-0116.

Initiation of Investigations

The Petition

On November 18, 1991, we received a petition filed in proper form by Avesta Sandvik Tube, Inc., Bristol Metals, Damascus Tubular Products, Trent Tube Division of the Crucible Materials Corporation, and the United Steelworkers of America (the petitioners). Supplements to the petition were received on November 27, and December 5, 1991. In accordance with 19 CFR 353.12, the petitioners allege that welded ASTM A-312 austenitic stainless steel pipe (WSSP) from the Republic of Korea (Korea) and Taiwan is being, or is 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 petition because they are interested parties, as defined under sections 771(9)(C) and (D) of the Act, and because they have filed the petition on behalf of U.S. industry producing a product that is subject to these investigations and on behalf of a certified union representing workers in the domestic welded steel pipe industry. 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, this petition, it should file a written notification with the 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.

United States Price and Foreign Market Value

For both countries subject to these investigations, petitioners' estimate of U.S. price (USP) is based on domestic industry sources and is comprised of sales, bids, or offers for sale of the subject merchandise in the United States by Korean and Taiwanese manufacturers. Petitioners adjusted U.S. price for movement charges, credit and duty drawback.

The petitioners' estimate of foreign market value (FMV) for both countries is based on actual home market sales prices obtained from market research commissioned by petitioners in Korea and Taiwan. Petitioners deducted discounts, rebates and promotions, movement charges, credit expenses, warranty expenses, and advertising expenses.

Certain Korean and Taiwanese U.S. prices were based on those sales or offers for sale which were more than 12 months older than the date of the filing of this petition. For purposes of initiation, we are not accepting petitioner's less than fair value allegations which were based on non-contemporaneous comparisons of U.S. prices and FMV.

Based on the comparisons of the prices accepted by the Department, the alleged dumping margins for WSSP from Korea range from 9.0 to 31.7 percent, and those from Taiwan range from 1.7 to 31.9 percent.

Petitioners also allege that "critical circumstances" exist, within the meaning of section 733(e) of the Act, with respect to imports to WSSP from Taiwan. Petitioners allege that Taiwanese exporters had reason to believe, at some time prior to the beginning of the proceeding, that a dumping proceeding was likely. They therefore state that the Department should examine imports beginning with the three months prior to the month the petition was filed, pursuant to § 353.15(g) of the Department's regulations.

Initiation of Investigations

We have examined the petitions on WSSP from Korea and Taiwan 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 WSSP from the above-referenced countries are being, or are likely to be, sold in the United States at less than fair value.

Scope of Investigations

The merchandise subject to these investigations, WSSP, is austenitic stainless steel pipe that meets the standards and specifications set forth by the American Society for Testing and Materials (ASTM) for the welded form of chromium-nickel pipe designated ASTM A-312.

WSSP is produced by forming stainless steel flat-rolled products into a tubular configuration and welding along the sea. WSSP is a commodity product generally used as a conduit to transmit liquids or gases. Major applications for WSSP include, but are not limited to, digester lines, blow lines, pharmaceutical lines, petrochemical stock lines, brewery process and transport lines, general food processing lines, automotive paint lines and paper process machines.

Imports of these products are currently classifiable under the following Harmonized Tariff Schedule (HTS) subheadings: 7306.40.1000, 7306.40.5010, 7306.40.5030, 7306.40.5050, and 7306.40.5070. Although these subheadings include both pipes and tubes, the scope of these investigations is limited to welded austenitic stainless steel pipes. The HTS subheadings are provided for convenience and customs purposes. Our written description of the scope of these investigations is dispositive.

Preliminary Determinations by the International Trade Commission

The International Trade Commission will determine by January 2, 1992, whether there is a reasonable indication that imports of WSSP from Korea and Taiwan are materially injuring, or threaten material injury to, a U.S. industry. If its determinations are negative, the investigations will be terminated. Otherwise, if the investigations proceed normally, the Department will make its preliminary determinations on or before April 27, 1992.

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

Dated: December 9, 1991.

Alan M. Dunn,

Assistant Secretary for Import Administration.

[FR Doc. 91-29860 Filed 12-12-91; 8:45 am]

BILLING CODE 3510-DS-M

APPENDIX B

LIST OF WITNESSES

CALENDAR OF PUBLIC CONFERENCE

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

Subject: CERTAIN WELDED STAINLESS STEEL PIPES FROM THE REPUBLIC OF KOREA AND TAIWAN

Investigations Nos.: 731-TA-540 and 731-TA-541 (Preliminary)

Date and Time: December 10, 1991 - 9:30 a.m.

Sessions were held in connection with the investigations in Main Hearing Room 101 of the United States International Trade Commission, 500 E Street SW., Washington, DC.

In support of the imposition of antidumping duties

Collier, Shannon & Scott
Washington, DC
on behalf of

Avesta Sandvik Tube, Inc.

Bristol Metals

Damascus Tubular Products

Trent Tube Division, Crucible Materials Corp.

United Steelworkers of America

Mr. William K. Grant, President, Trent Tube Division

Mr. George Werner, President, Damascus Tubular Products

Clarisse A. Morgan, Georgetown Economic Services

David A. Hartquist--OF COUNSEL

In opposition to the imposition of antidumping duties

Ablondi & Foster
Washington, DC
on behalf of

Ta Chen Stainless Pipe Co., Ltd.

Mr. F. David Foster--OF COUNSEL

In opposition to the imposition of antidumping duties--Continued

Grunfeld, Desiderio, Lebowitz & Silverman
Washington, DC
on behalf of

Cheng Mien Industry Co.

Jaung Yuann Enterprise Co., Ltd.

Yeun Chyang Industrial Co., Ltd.

Mr. David L. Simon--OF COUNSEL

Morrison & Foerster
Washington, DC
on behalf of

Lucky Metals

Pusan Steel Pipe Corp.

Sammi Metal Products Co., Ltd.

Mr. Donald B. Cameron)
Mr. G. Brian Busey) --OF COUNSEL

APPENDIX C

INCOME-AND-LOSS DATA ON WELDED A-249 AND A-269 TUBES AND ON ALL WELDED STAINLESS STEEL TUBES

Table C-1
Income-and-loss experience of U.S. producers on their welded A-249 and A-269 tube operations, accounting years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	1991
	Value (1,000 dollars)				
Net sales	34,427	35,555	25,098	18,411	19,056
Cost of goods sold	28,577	31,398	23,251	16,982	17,980
Gross profit	5,850	4,157	1,847	1,429	1,076
Selling, general, and administrative expenses	2,585	2,570	1,919	1,447	1,636
Operating income or (loss)	3,265	1,587	(72)	(18)	(560)
Interest expense	***	***	***	***	***
Other income (expense), net	***	***	***	***	***
Net income or (loss) before income taxes	***	***	***	***	***
Depreciation and amortization	***	***	***	***	***
Cash flow[1]	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold	83.0	88.3	92.6	92.2	94.4
Gross profit	17.0	11.7	7.4	7.8	5.6
Selling, general, and administrative expenses	7.5	7.2	7.6	7.9	8.6
Operating income or (loss)	9.5	4.5	(0.3)	(0.1)	(2.9)
Net income or (loss) before income taxes	***	***	***	***	***
	Number of firms reporting				
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***
Data	5	5	5	5	5

[1] Cash flow is defined as net income or loss plus depreciation and amortization.

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

Table C-2
Income-and-loss experience of U.S. producers on their operations on all welded stainless steel tubes, accounting years 1988-90, January-September 1990, and January-September 1991

Item	1988	1989	1990	Jan.-Sept.-- 1990	Jan.-Sept.-- 1991
	Value (1,000 dollars)				
Net sales	76,585	76,993	59,741	47,492	43,382
Cost of goods sold	63,820	65,788	54,005	42,145	40,321
Gross profit	12,765	11,205	5,736	5,347	3,061
Selling, general, and administrative expenses	5,251	4,935	4,316	3,155	3,279
Operating income or (loss)	7,514	6,270	1,420	2,192	(218)
Interest expense	***	***	***	***	***
Other income (expense), net	***	***	***	***	***
Net income or (loss) before income taxes	***	***	***	***	***
Depreciation and amortization	***	***	***	***	***
Cash flow[1]	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold	83.3	85.4	90.4	88.7	92.9
Gross profit	16.7	14.6	9.6	11.3	7.1
Selling, general, and administrative expenses	6.9	6.4	7.2	6.6	7.6
Operating income or (loss)	9.8	8.1	2.4	4.6	(0.5)
Net income or (loss) before income taxes	***	***	***	***	***
	Number of firms reporting				
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***
Data	5	5	5	5	5

[1] Cash flow is defined as net income or loss plus depreciation and amortization.

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

APPENDIX D

COMMENTS RECEIVED FROM PRODUCERS ON THE IMPACT OF IMPORTS OF WELDED A-312 PIPES FROM THE REPUBLIC OF KOREA AND TAIWAN ON THEIR GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL, AND DEVELOPMENT AND PRODUCTION EFFORTS

The Commission requested the U.S. producers to describe and explain the actual and potential negative effects, if any, of imports of welded A-312 pipes from Korea and Taiwan on their growth, investment, ability to raise capital, and development and production efforts (including efforts to develop a derivative or improved version of the product). Their responses are shown below.

Actual Negative Effects

* * * * * * *

Anticipated Negative Effects

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Influence of Imports on Capital Investment

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