BALL BEARINGS, MOUNTED OR UNMOUNTED, AND PARTS THEREOF, FROM ARGENTINA, AUSTRIA, BRAZIL, CANADA, HONG KONG, HUNGARY, MEXICO, THE PEOPLE'S REPUBLIC OF CHINA, POLAND, THE REPUBLIC OF KOREA, SPAIN, TAIWAN, TURKEY AND YUGOSLAVIA

Determination of the Commission in Investigation No. 701–TA–307 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation

Determinations of the Commission in Investigations Nos. 731–TA–498–511 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigations

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Washington, DC 20436

UNITED STATES INTERNATIONAL TRADE COMMISSION

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Note.--Information that would reveal business proprietary operations of individual concerns may not be published and therefore has been deleted from this report.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

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 701-TA-307, and Nos. 731-TA-498 through 511 (Preliminary)

BALL BEARINGS, MOUNTED OR UNMOUNTED, AND PARTS THEREOF, FROM ARGENTINA, AUSTRIA, BRAZIL, CANADA, HONG KONG, HUNGARY, MEXICO, THE PEOPLE'S REPUBLIC OF CHINA, POLAND, THE REPUBLIC OF KOREA, SPAIN, TAIWAN, TURKEY, AND YUGOSLAVIA

Determinations

On the basis of the record[1] developed in the subject investigations, the Commission determines,[2] pursuant to section 703(a) of the Tariff Act of 1930 (19 U.S.C. § 1671b(a)), that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of imports from Turkey of ball bearings, mounted or unmounted, and parts thereof,[3] provided for in subheadings 6909.19.50, 8482.10.10, 8482.10.50, 8482.80.00, 8482.91.00, 8482.99.10, 8482.99.70, 8483.20.40, 8483.20.80, 8483.30.40, 8483.30.80, 8483.90.20, 8483.90.30, 8483.90.70, and 8708.99.50 of the Harmonized Tariff Schedule of

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

[2] Commissioner Newquist dissenting.

[3] The products covered in these investigations include all ground antifriction bearings and parts thereof, finished or unfinished, which employ balls as the rolling element, whether or not housed or combined. Imports of these products are classified under the following categories: Antifriction balls and other parts of ball bearings, ball bearings with integral shafts, other ball bearings (including radial ball bearings) and parts thereof, and housed or mounted ball bearing units and parts thereof. Wheel hub units which employ balls as the rolling element are included in these investigations. Finished but unground or semiground balls are not included in the scope of these investigations. Unfinished parts (inner race, outer race, balls, etc.) are included in these investigations if they have been heat treated, or heat treatment is not required to be performed on the part. Unfinished parts which will be subject to heat treatment after importation are not included in these investigations.

the United States (previously under items 535.27, 536.15, 680.30, 680.31, 680.33, 680.34, 680.37, 680.38, 680.39, 680.41, 681.04, 681.10, 681.36, 692.32, and 692.33 of the former Tariff Schedules of the United States), that are alleged to be subsidized by the Government of Turkey.

Further, the Commission determines,[4] pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of imports from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, the Republic of Korea, Spain, Taiwan, Turkey, and Yugoslavia of ball bearings, mounted or unmounted, and parts thereof, that are alleged to be sold in the United States at less than fair value (LTFV).

Background

On February 13, 1991, a petition was filed with the Commission and the Department of Commerce by the Torrington Company, Torrington, CT, alleging that an industry in the United States is materially injured by reason of subsidized imports of ball bearings, mounted or unmounted, and parts thereof, from Turkey, and by reason of LTFV imports of such merchandise from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, the Republic of Korea, Spain, Taiwan, Turkey, and Yugoslavia. Accordingly, effective February 13, 1991, the Commission instituted preliminary countervailing duty investigation No. 701-TA-307 (Preliminary) and preliminary antidumping investigations Nos. 731-TA-498 through 511 (Preliminary).

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[4] Commissioner Newquist dissenting.

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 February 22, 1991 (56 F.R. 7398). The conference was held in Washington, DC, on March 6, 1991, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF ACTING CHAIRMAN BRUNSDALE,
COMMISSIONER LODWICK AND COMMISSIONER ROHR

Based on the record obtained in these preliminary investigations, we determine that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports alleged to be subsidized by the Government of Turkey or by reason of imports from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, the Republic of Korea, Spain, Taiwan, Turkey, and Yugoslavia that are allegedly sold at less than fair value (LTFV).[1]

LIKE PRODUCT AND DOMESTIC INDUSTRY

We begin our analysis by defining the "like product" and the "domestic industry." The "like product" is a "product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to investigation."[2] The term "domestic industry" means the "domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product."[3] The articles subject to this investigation are ball bearings, mounted and unmounted, and parts thereof from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China ("China"), Poland, the Republic of Korea ("Korea"), Spain, Taiwan,

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

[2] 19 U.S.C. § 1677(10).

[3] 19 U.S.C. § 1677(4)(A).

Turkey, and Yugoslavia.[4]

Like Product

Our decision regarding the appropriate like product(s) in an investigation is essentially a factual determination, and we have applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[5] In analyzing like product issues, we generally consider a number of factors relating to characteristics and uses including (1) physical characteristics, (2) uses, (3) interchangeability of the products, (4) channels of distribution, (5) customer or producer perceptions, (6) common manufacturing facilities and production employees, (7) production processes and, where appropriate, (8) price.[6] No single factor is dispositive, and we may consider other factors that we deem relevant based upon the facts of a particular investigation. Generally, we have not drawn distinctions based on minor variations between the articles subject to an investigation, and we have sought clear dividing lines among possible like products.[7]

The principal like product issues that we must address in these

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[4] The International Trade Administration of the Department of Commerce ("Commerce") published a full definition of the scope of investigation in its notice of initiation. See 55 Fed. Reg. 10237, 10238 (March 11, 1991).

[5] Asociacion Colombiana de Exportadores de Flores v. United States, 693 F. Supp. 1165, 1169 (CIT 1988) ("Asocoflores").

[6] See, e.g., Asocoflores, 693 F. Supp. at 1170; Heavy Forged Handtools from the People's Republic of China, Inv. No. 731-TA-457 (Final), USITC Pub. 2357 at 4 (February 1991); 3.5" Microdisks and Media Therefor from Japan, Inv. No. 731-TA-389 (Final), USITC Pub. 2170 at 7 (March 1989).

[7] See, e.g., Certain Laser Light-Scattering Instruments and Parts Thereof from Japan, Inv. No. 731-TA-455 (Final), USITC Pub. 2328 at 6 n.13 (November 1990).

investigations are (1) whether aerospace bearings constitute a separate like product from other types of ball bearings; (2) whether miniature precision instrument ball bearings constitute a separate like product from other types of ball bearings; (3) whether water pump bearings constitute a separate like product from other types of ball bearings; and (4) whether those ball bearing parts within the scope of investigation constitute a separate like product.

For the reasons indicated below, we have found one like product in these investigations, consisting of ball bearings and those parts thereof within the scope of investigation. This like product is coextensive with the articles under investigation.

Aerospace Bearings

In considering whether "aerospace bearings" constitute a like product separate from other ball bearings, we must first ascertain precisely what an "aerospace bearing" is. Respondent FAG, the sole party that advocates the designation of "aerospace bearings" as a separate like product, offers little guidance. It defines aerospace bearings as "bearings which are employed in aerospace airframe, engine and auxiliary power applications" -- a circular definition framed solely in terms of end use.[8] Indeed, we cited the lack of any standard, objective definition for aerospace bearings, together with our disinclination to base like product distinctions solely upon end use in investigations involving intermediate products, in rejecting separate like product treatment for aerospace bearings in the 1989 Antifriction Bearings

[8] See FAG Postconference Brief at 5.

investigation.[9]

The record in these investigations similarly does not indicate the existence of any objective basis aside from end use on which aerospace bearings could be distinguished from other ball bearings. Although FAG asserts that aerospace bearings are characterized by precision ratings between ABEC 5 and ABEC 9, FAG itself admits that not all ball bearings used for aerospace applications fall within these precision ratings.[10] Moreover, ball bearings in the ABEC 7 and 9 classifications are used in many non-aerospace applications, such as in the machine tool and computer industries.[11]

Production processes and equipment for ball bearings in the higher precision classifications tend to be the same, regardless of the ultimate application of the bearing.[12] FAG's assertion that producers perceive aerospace bearings as distinct products is undercut by its own admission that some of its ball bearings used in aerospace applications are manufactured by a division which manufactures and sells a wide variety of ball bearings with

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[9] 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 at 22-25 (May 1989) ("Antifriction Final"). We acknowledge that we are not bound to follow in a subsequent investigation like product definitions utilized in an earlier investigation. Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1088 (CIT 1988). Nevertheless, we believe that reference to the Antifriction Bearings determination is useful insofar as its reasoning concerns like product issues very similar or identical to those presented here.

[10] FAG Postconference Brief, ex. 1, ¶ 4. Additionally, the use of high quality M50 steel, which FAG portrays as a distinguishing characteristic of aerospace bearings, is neither limited to ball bearings used for aerospace applications nor characteristic of all bearings used for such applications. Report at A-14 n.15.

[11] Report at A-14.

[12] See Report at A-13-14; see also Torrington Postconference Brief at 8.

non-aerospace applications.[13] Aerospace bearings are sold directly to the equipment manufacturer, a channel of distribution that is prevalent in the ball bearing industry generally.[14]

We do not discern existence of a "clear dividing line" separating aerospace bearings from other types of ball bearings.[15] Accordingly, we will not treat aerospace bearings as a separate like product.

Miniature Precision Ball Bearings

We next consider whether precision instrument ball bearings with outer diameters (OD) of 30 mm and under constitute a like product separate from other ball bearings. This potential like product classification was considered and rejected in the Antifriction Bearings investigation.[16]

Miniature precision ball bearings have one distinguishable physical characteristic from other ball bearings -- their size. We, however, have generally found size differences alone to be an insufficient basis for distinguishing separate like products.[17] Moreover, miniature ball bearings

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[13] FAG Postconference Brief, ex. 3, ¶ 3.

[14] See Report at A-14.

[15] Cf., e.g., Mechanical Transfer Presses from Japan, Inv. No. 731-TA-429 (Final), USITC Pub. 2257 at 7 (February 1990) (determining that "auto body stamping" mechanical transfer press was not a separate like product when "[t]here simply is no inherent attribute or set of attributes" that identifies such a press or limits it to such use).

[16] Antifriction Final, USITC Pub. 2185 at 27.

[17] 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 at 11 (November 1989); Mechanical Transfer Presses from Japan, Inv. No. 731-TA-429 (Preliminary), USITC Pub. 2160 at 7 (February 1989); Color Picture Tubes from Canada, Japan, the Republic of Korea, and Singapore, Inv. Nos. 731-TA-367-370 (Final), USITC Pub. 2046 at 5 (December 1987). See also Citizens Watch Co. v. United States, 733 F. Supp. 383, 389 (CIT 1990) ("the

(continued...)

incorporate the same components as larger ball bearings.[18]

Miniature precision instrument bearings are used in instrument gauges, aircraft and aerospace applications, medical and dental equipment, and computer and VCR disk and tape drives.[19] These applications do not appear to differ from those of ball bearings generally.[20]

There is some evidence of producer and customer perceptions of miniature ball bearings as separate products from other ball bearings. The World List of Ball or Roller Bearing Manufacturers provides separate breakouts for manufacturers that produce precision ball bearings with greater than 30 mm OD and those that produce precision ball bearings with less than 30 mm OD.[21] The Federal Acquisition Regulations of the Department of Defense additionally contain a provision specifically directed to ball bearings with less than 30 mm OD.[22]

Channels of distribution of miniature precision ball bearings do not appear to differ significantly from those of other ball bearings. Distributors that sell miniature ball bearings also sell ball bearings of

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[17](...continued)
Commission was well within its discretion in finding screen size to be an insufficient basis upon which to make the like product distinction requested").

[18] Report at A-8.

[19] FAG Postconference Brief, ex. 3, ¶ 3.

[20] See Report at A-14.

[21] Petition, ex. 10.

[22] 48 C.F.R. § 208.7301.

larger sizes.[23]

Production processes for miniature precision ball bearings do not differ from those of precision ball bearings generally.[24] Although dedicated production lines may be devoted to bearings of different sizes, manufacturing facilities and employees utilized for production of ball bearings of less than 30 mm OD can also be used for production of ball bearings of greater than 30 mm OD.[25]

We do not believe that the differences in size and in customer or producer perceptions justify treating miniature precision ball bearings as a separate like product in light of their numerous similarities with ball bearings generally. We consequently will not accord separate like product treatment to miniature precision ball bearings.

Water Pump Bearings

We next consider whether water pump bearings constitute a separate like product. Water pump bearings differ somewhat in physical characteristics from regular ball bearings because of their integral shafts and elongated outer races.[26] We do not perceive these differences to be significant, however, because the components in a water pump bearing are essentially the same as those in a double row ball bearing, albeit in a slightly different

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[23] See Petition, ex. 54; Letter from Mitchell Dutton, AST Bearing, to Kenneth R. Mason (March 1, 1991).

[24] See Report at A-10-14.

[25] See Report at A-13.

[26] FAG Postconference Brief, ex. 4, ¶ 3.

configuration.[27]

FAG's contention that the end uses of water pump bearings are clearly distinguishable from those of other types of ball bearings is rebutted by the firm's own sales literature. This literature states that a water pump bearing can be substituted for a regular bearing and shaft in certain applications.[28]

Water pump bearings are sold principally to original equipment manufacturers.[29] This channel of distribution is common to ball bearings generally.[30] There is evidence that at least one producer -- FAG -- perceives water pump bearings to be a distinct product.[31]

Water pump bearings are manufactured at the same facilities as other types of ball bearings.[32] The manufacturing process for such bearings is essentially the same as that for regular ball bearings.[33]

Again, we perceive the similarities between water pump bearings and other ball bearings to be more pervasive than the differences. We therefore do not accord separate like product treatment to water pump bearings.

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[27] Report at A-8 n.8. See Certain Laser Light-Scattering Instruments and Parts Thereof from Japan, Inv. No. 731-TA-455 (Final), USITC Pub. 2328 at 6 (November 1990) (physical differences between two products not significant when each product involves the assembly of the same or similar components).

[28] FAG Postconference Brief, ex. 5 at 13 ("In applications such as belt idlers, fans, power mowers, lawn tractors, wheel assemblies, saw arbors, and agricultural planters, the FAG water pump bearing can be substituted in place of a separate shaft and bearings.").

[29] See FAG Postconference Brief at 21-22, ex. 5 at 2.

[30] Report at A-14.

[31] See generally FAG Postconference Brief, ex. 5.

[32] FAG Postconference Brief at 21.

[33] Report at A-8 n.8.

Ball Bearing Parts

We finally consider the like product treatment of those ball bearing parts within the scope of the investigation. No party has advocated treating such parts as a separate like product or products from finished ball bearings.

We considered the issue of the treatment of bearing parts in the Antifriction Bearings investigation. Examining those factors that we regularly consider in determining whether components or "semi-finished products" should be included in the same like product as finished products,[34] we determined that parts and components did not constitute separate like products.[35]

In support of our determination, which concerned antifriction bearings generally, we noted that there were no other materials of any significance added to the components when producing finished bearings and that there appeared to be no other independent use for unfinished components apart from their use in finished bearings.[36] These factors have not changed on the

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[34] These are: (1) the necessity for, and costs of, further processing; (2) the degree of interchangeability of articles at different stages of production; (3) whether the article at an earlier stage of production is dedicated to use in the finished article: (4) whether there are significant independent uses or markets for the finished and unfinished articles; and (5) whether the article at an earlier stage of production embodies or imparts to the finished article an essential characteristic or function. E.g., Certain Residential Door Locks and Parts Thereof from Taiwan, Inv. No. 731-TA-433 (Final), USITC Pub. 2253 at 8 & n.16 (January 1990); Certain Telephone Systems and Subassemblies Thereof from Japan and Taiwan, Inv. Nos. 731-TA-426 and 428 (Final), USITC Pub. 2237 at 5 n.9 (November 1989).

[35] 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 (Preliminary), USITC Pub. 2083 at 20-22 (May 1988) ("Antifriction Preliminary"). We did not reexamine the issue of like product treatment of parts and components in the final investigations.

[36] Antifriction Preliminary, USITC Pub. 2083 at 21-22.

current record, which concerns ball bearings only.[37] We accordingly determine that the like product encompasses both completed ball bearings and those parts within the scope of investigation.

Related Parties

Under section 771(4)(B) of the Tariff Act of 1930, producers which are related to exporters or importers, or which are themselves importers of allegedly dumped or subsidized merchandise, may be excluded from the domestic industry in appropriate circumstances.[38] A number of domestic producers of ball bearings themselves import, or are related to exporters of, ball bearings from one or more of the 14 subject countries.[39]

We consequently must decide whether to exclude these producers from the domestic industry pursuant to the related parties provision. Petitioner Torrington Company ("Torrington") requested exclusion of related parties at the conference but did not elaborate its position in its brief.[40] Respondents oppose exclusion.[41]

Application of the related parties provision is within our discretion based upon the facts presented in each case.[42] If a company qualifies as a related party under section 771(4)(B), we determine in view of the producer's

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[37] See Report at A-12; Tr. at 75-76 (Gridley).

[38] 19 U.S.C. § 1677(4)(B).

[39] These include Federal Mogul, American Koyo Manufacturing, Emerson Power Transmission, Nachi Technology, and the American production entities of respondents SKF, FAG, and NTN. See Report at Appendix F.

[40] Tr. at 77-79 (E. Stewart).

[41] See SKF Postconference Brief at 4-6; NTN Postconference Brief at 5-8; FAG Postconference Brief at 22-27.

[42] Empire Plow Co. v. United States, 675 F. Supp. 1348, 1352 (CIT 1987).

related status, whether there are "appropriate circumstances" for excluding the company in question from the definition of the domestic industry.[43] The related parties provision may be employed to avoid any distortion in the aggregate data bearing on the condition of the domestic industry that might result from including related parties whose operations are shielded from the effects of the subject imports.[44] The primary factors that we have examined in deciding whether appropriate circumstances exist to exclude the related parties include:

> (1) the percentage of domestic production attributable to related producers;
>
> (2) the reason why importing producers choose to import the articles under investigation -- to benefit from the unfair trade practice or to enable them to continue production and compete in the domestic market; and
>
> (3) the competitive position of the related domestic producer vis-a-vis other domestic producers.[45]

We have also considered whether each company's books are kept separately from its "relations" and whether the primary interests of the related producers lie in domestic production or in importation.[46]

An understanding of the structure of the U.S. ball bearing industry is

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[43] See, e.g., Digital Readout Systems and Subassemblies Thereof from Japan, Inv. No. 731-TA-390 (Final), USITC Pub. 2150 at 15 (January 1989).

[44] Heavy Forged Handtools from the People's Republic of China, Inv. No. 731-TA-457 (Final), USITC Pub. 2357 at 18 (February 1991).

[45] See, e.g., Thermostatically Controlled Appliance Plugs and Internal Probe Thermostats Therefor from Canada, Japan, Malaysia, and Taiwan, Inv. Nos. 701-TA-292, 731-TA-400 and 402-404 (Final), USITC Pub. 2152 at 10 (January 1989); Granular Polytetrafluoroethylene Resin from Italy and Japan, Inv. Nos. 731-TA-385-386 (Final), USITC Pub. 2112 at 15 (August 1988); Rock Salt from Canada, Inv. No. 731-TA-239 (Final), USITC Pub. 1798 at 11 (January 1986).

[46] See, e.g., Rock Salt, USITC Pub. 1798 at 12.

helpful in analysis of the related parties issue. The market for ball bearings is global in nature and dominated by several multinational companies. These companies -- which include petitioner Torrington -- uniformly operate production facilities in several countries, including the United States.[47] Production in each country is, to an extent, rationalized to meet the needs of that country's market.[48] Because such companies do not find it efficient to produce all ball bearing lines in their U.S. facilities, they import certain ball bearings or bearing parts from their foreign manufacturing facilities.[49] We do not believe that importation is undertaken principally to benefit from unfair trade practices.

Moreover, the related parties generally have a longstanding presence as U.S. producers. SKF has owned U.S. production facilities for over 75 years and NTN and FAG have each operated U.S. production facilities for over 20 years.[50] Federal Mogul and Emerson Electric are U.S.-based.[51] Confidential data indicates that import volume from the subject countries was smaller than U.S. production volume for each of the related parties; in most instances the

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[47] Report at A-19, A-21.

[48] Report at A-19.

[49] See, e.g., Tr. at 113 (Shelley), 126 (Hayes). Torrington itself imports some ball bearings and parts thereof, albeit not from any of the 14 countries subject to investigation. Tr. at 49-50, 75 (Gridley). Moreover, the related parties' imports from the subject countries were generally far less than their imports from Japan or European countries not included in these investigations. Report at A-29.

[50] See Tr. at 118 (Hayes); FAG Postconference Brief at 27; Antifriction Final, USITC Pub. 2185 at 42.

[51] See Petition at 2-5.

ratios of imports to domestic production were quite low.[52]

The related parties collectively account for a substantial proportion of U.S. sales and include some of the largest producers of ball bearings in the United States.[53] In light of their substantial presence in the market and their generally small ratios of subject imports to domestic shipments, we believe that exclusion of the related parties could present a distorted picture of the state of the industry.[54]

We believe that the foregoing considerations concerning industrywide production patterns and the nature of the related parties' U.S. production operations indicate that "appropriate circumstances" do not exist for exclusion of any of the related parties. We accordingly have not excluded any of the related parties from the domestic industry.

In light of our like product and related party determinations, we determine that there is one domestic industry, composed of all U.S. producers of ball bearings and parts like those within the scope of investigation.

Standing

Respondents NTN and KBC contend that Torrington has failed to demonstrate sufficient industry support for its petition to satisfy statutory standing requirements. Relying on Judge Musgrave's decision in Suramericana

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[52] Report at Appendix F.

[53] Report, Table 11.

[54] See Chrome-Plated Lug Nuts from the People's Republic of China and Taiwan, Inv. Nos. 731-TA-474-475 (Preliminary), USITC Pub. 2342 at 17 (December 1990); Silicon Metal from Argentina, Brazil, and the People's Republic of China, Inv. Nos. 701-TA-304 and 731-TA-470-472 (Preliminary), USITC Pub. 2325 at 11 (October 1990).

de Aleaciones Laminadas, C.A. v. United States,[55] NTN and KBC argue that we should dismiss the petition or, alternatively, recommend that Commerce dismiss the petition.

We have repeatedly held that, because we defer to Commerce's statutory authority to determine the sufficiency of petitions under the statute, we do not rule on a petitioner's standing.[56] [57] We have indicated that we will not change this practice in light of Judge Musgrave's Suramericana opinion.[58] Indeed, the decision itself does not require the Commission to determine standing issues.[59] Moreover, the decision cannot now be characterized as controlling law: it is currently on appeal to the Federal Circuit and expressly was not followed in a recent CIT opinion, which indicated that it is Commerce's function to decide questions of standing.[60] We consequently make no determination on the issue of standing.

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[55] 746 F. Supp. 139 (CIT 1990), appeal docketed, App. No. 91-1015 (Fed. Cir., Oct. 5, 1990).

[56] See, e.g., Thermostatically Controlled Appliance Plugs and Internal Probe Thermostats Therefor from Canada, Japan, Malaysia, and Taiwan, Inv. Nos. 701-TA-292 and 731-TA-400 and 402-404 (Final), USITC Pub. 2152 at 25 n.79 (January 1989); Certain Laser Light-Scattering Instruments from Japan, Inv. No. 731-TA-455 (Preliminary), USITC Pub. 2282 at 16 n.52 (May 1990).

[57] Acting Chairman Brunsdale believes that lack of support for a petition from the majority of the industry that would stand to benefit from the imposition of dumping duties certainly suggests an absence of injury.

[58] Silicon Metal from Argentina, Brazil, and the People's Republic of China, Inv. Nos. 701-TA-304 and 731-TA-470-472 (Preliminary), USITC Pub. 2325 at 21 (October 1990).

[59] See 746 F. Supp. at 153.

[60] NTN Bearing Corp. v. United States, slip op. 91-13 at 12 (CIT Feb. 28, 1991).

CONDITION OF THE DOMESTIC INDUSTRY

In determining the condition of the domestic industry, we consider, among other factors, domestic consumption, domestic production, capacity, capacity utilization, shipments, inventories, employment, market share, domestic prices, profitability, the ability to raise capital, and investment.[61] In addition, we evaluate all of these factors in the "context of the business cycle and conditions of competition that are distinctive to the affected industry."[62]

We obtained extensive information in these preliminary investigations concerning the condition of the domestic industry. Usable questionnaire responses were received from 25 producers of ball bearings or parts thereof, accounting for 74 percent, by quantity, of U.S. shipments of complete ball bearings in 1989, and for 68 percent, by value, of 1989 U.S. shipments of ball bearings and parts thereof.[63] This information is sufficiently complete to portray an accurate characterization of the condition of the industry. Moreover, we determine that there is no likelihood that any additional evidence that could be obtained in any final investigations would furnish a materially different view of the industry.[64]

The individual factors pertaining to domestic consumption and production have been generally positive during the period of investigation, which

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[61] 19 U.S.C. § 1677(7)(C)(iii).

[62] 19 U.S.C. § 1677(7)(C)(iii).

[63] Report at A-24.

[64] See generally American Lamb Co. v. United States, 785 F.2d 994, 1001-04 (Fed. Cir. 1986) (to support negative determination in preliminary investigation, there must be no likelihood that contrary evidence will arise in a final investigation).

encompasses calendar years 1988 through 1990. Domestic consumption of ball bearings and parts thereof, for example, increased during each year of the period of investigation. As measured by value, consumption rose by 16.4 percent between 1988 and 1990.[65] Similarly, the value of shipments of U.S. producers of ball bearings and parts increased throughout the period. The value of U.S. shipments increased by 13.7 percent and the value of total shipments increased by 14.7 percent between 1988 and 1990.[66] Domestic production of complete ball bearings also rose during each year in the period, with a total increase of 18.6 percent between 1988 and 1990. Production of ball bearing parts, after rising in 1989, decreased in 1990 to a level slightly below that of 1988.[67]

The market share of U.S. producers remained at high levels throughout the period of investigation. U.S. producers' shipments, as a share of the value of U.S. apparent consumption, decreased from 73.8 percent in 1988 to 70.4 percent in 1989, and then rebounded to 72.1 percent in 1990.[68]

Employment-related indicators are uniformly positive. Wages paid to production and related workers producing complete ball bearings increased by 12.1 percent between 1988 and 1990 and total compensation paid to such workers increased by 11.5 percent over the same period. Hourly wages and hourly total compensation also increased during each year in the period. Employment of production and related workers showed a more modest increase of 2.3 percent

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[65] Report, Table 3.

[66] Report, Table 5.

[67] Report at A-25, Table 4.

[68] Report, Table 3.

over the period of investigation.[69]

Profitability changed little over the course of the period of investigation, despite large annual fluctuations. Although financial results for individual industry participants varied, our mandate is to determine the performance of the industry as a whole.[70] On an aggregated basis, domestic producers showed positive operating income, net income before income taxes, and cash flow during each year in the period. Operating income of U.S. ball bearing producers declined by only 0.08 percent while net income before income taxes declined by 5.0 percent between 1988 and 1990. Cash flow, by contrast, increased by 21.4 percent during the period of investigation.[71]

U.S. producers' inventories of complete ball bearings increased throughout the period of investigation, because production increased at a greater rate than consumption. Inventories of parts and components also rose during the period of investigation, notwithstanding a decrease between 1988 and 1989.[72]

The Commission obtained pricing information concerning six discrete U.S.-produced ball bearing products. Quarterly prices of these products generally rose substantially during 1988-89, then tended to fall somewhat in 1990. Nonetheless, prices showed significant increases during the entire three-year period.[73]

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[69] Report, Table 8.

[70] Sandvik AB v. United States, 721 F. Supp. 1322, 1330 (CIT 1989); Copperweld Corp. v. United States, 682 F. Supp. 552, 569 (CIT 1988).

[71] Report, Table 10.

[72] Report at A-31, Table 7.

[73] Report at A-63-64, Tables 29, 30.

Investment-related indicators have been strongly positive. Research and development expenditures increased throughout the period of investigation, rising 19.7 percent between 1988 and 1990.[74] Capital expenditures showed a dramatic 80.5 percent increase over the same period.[75] Not surprisingly, there was also significant expansion of production facilities: capacity for both complete ball bearings and parts increased substantially throughout the period of investigation.[76] Capacity utilization fell, but only because increases in capacity outstripped those of production.[77]

Our review of the pertinent indicators show an industry in a strong condition. Increases in shipments, employment, compensation, and consistent profitability demonstrate that the industry is currently in good condition. The present positive state of the industry is confirmed by the lack of any serious erosion in the industry's market share notwithstanding significant increases in prices. Moreover, the industry has been able to devote substantially increasing sums to capital and research and development expenditures, and has significantly expanded its capacity in recent years. On the basis of these factors, we conclude that there is no reasonable indication that the domestic ball bearing industry is experiencing material injury.[78] We

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[74] Report, Table 13.

[75] Report, Table 14.

[76] Report, Table 4.

[77] Report, Table 4.

[78] Acting Chairman Brunsdale does not reach a separate legal conclusion regarding the presence or absence of material injury based on the condition of the industry. While she does not believe an independent determination of the condition of the domestic industry is either required by the statute or useful, she finds the discussion of the condition of the domestic industry

(continued...)

consequently find it unnecessary to address the issue of causation.[79] [80]

REASONABLE INDICATION OF THREAT OF MATERIAL INJURY

Section 771(7)(F) of the Tariff Act of 1930 directs the Commission to determine whether a U.S. industry is threatened with material injury by reason of imports "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."[81] The ten factors that the Commission must consider are:

> (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

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[78](...continued)
helpful in determining whether any injury resulting from dumped imports is material.

[79] See American Spring Wire Corp. v. United States, 590 F. Supp. 1273, 1278-80 (CIT 1984), aff'd sub nom. Armco, Inc. v. United States, 760 F.2d 249 (Fed. Cir. 1985); National Association of Mirror Manufacturers v. United States, 696 F. Supp. 642, 645-48 (CIT 1988).

[80] Acting Chairman Brunsdale does not join in this conclusion. See Additional Views of Acting Chairman Brunsdale.

[81] 19 U.S.C. § 1677(7)(F)(ii).

merchandise in the exporting country,

(VII) any other demonstrable adverse trends that indicate probability that importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of 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 1671 or 1673 of this title or to final orders under section 1671e or 1673e of this title, are also used to produce the merchandise under investigation,

(IX) in any investigation under this title which involves imports of both 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 1671d(b)(1) or 1673(b)(1) of this title 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.[82]

In addition, we must consider whether dumping findings or antidumping remedies in markets of foreign countries against the same class of merchandise suggest a threat of material injury to the domestic industry.[83]

Cumulation

As a threshold matter, we must consider whether to cumulate imports from the 14 subject countries for purposes of our threat analysis. The statute indicates that, in its threat analysis, "[t]o the extent practicable . . . the Commission may cumulatively assess the volume and price effect of imports from two or more countries. . . ."[84] Hence, cumulation for threat analysis, in

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[82] 19 U.S.C. § 1677(7)(F)(i).

[83] See 19 U.S.C. § 1677(7)(F)(iii).

[84] 19 U.S.C. § 1677(7)(F)(iv) (emphasis added).

contrast to cumulation for material injury analysis, is discretionary.[85]

We have determined to exercise our discretion not to cumulate any of the subject imports for a number of reasons. First, there is a noticeable lack of uniformity of pricing trends among the 14 subject countries.[86] Similarly, volume and market penetration trends vary markedly among the subject countries.[87] These factors, which render meaningful cumulative analysis difficult in the context of threat, have been held to constitute a sufficient basis for the Commission to decline to cumulate for threat analysis.[88]

Moreover, the market shares of many of the subject countries are extremely low; the vast majority have market shares under 1.0 percent and a significant number have market shares of 0.3 percent or less.[89] Such low market shares could warrant application of the negligible import exception to the mandatory cumulation provision for material injury analysis with respect to many of the subject countries.[90] Our finding that there is no reasonable

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[85] Compare 19 U.S.C. § 1677(7)(F)(iv) (Commission "may" cumulate for threat analysis) with 19 U.S.C. § 1677(7)(C)(iv) (Commission "shall" cumulate for material injury analysis).

[86] Report at A-64.

[87] Report, Tables 28, J-1.

[88] Asociacion Colombiana de Exportadores de Flores v. United States, 704 F. Supp. 1068, 1072 (CIT 1988).

[89] Report, Tables 28, J-1.

[90] See 19 U.S.C. § 1677(7)(C)(v). Indeed, the Commission has in numerous instances applied the negligible import exception with respect to countries having market penetration levels akin to those of most of the subject countries in these investigations. See Coated Groundwood Paper from Austria, Belgium, Finland, France, Germany, Italy, the Netherlands, Sweden, and the United Kingdom, Inv. Nos. 731-TA-486-494 (Preliminary), USITC Pub. 2359 at 28,

(continued...)

indication that the domestic industry is experiencing material injury has rendered it unnecessary for us to determine the proper application of the negligible import exception in these investigations.[91] [92] Nevertheless, the presence of circumstances that would make mandatory cumulation for material injury analysis questionable militates against discretionary cumulation for threat analysis. Consequently, the extremely low market shares of the majority of the subject countries are a pertinent factor that we considered in exercising our discretion not to cumulate.[93]

Accordingly, we make a separate threat determination for each subject

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[90](...continued)
30-36 (February 1991); Steel Wire Rope from Argentina, Chile, India, Mexico, the People's Republic of China, Taiwan, and Thailand, Inv. Nos. 701-TA-305-306 and 731-TA-476-482 (Preliminary), USITC Pub. 2343 at 19-20 (December 1990); Polyethylene Terephthalate Film, Sheet, and Strip from Japan, the Republic of Korea, and Taiwan, Inv. Nos. 731-TA-458-460 (Preliminary), USITC Pub. 2292 at 20 (June 1990).

[91] This finding has also rendered it unnecessary for us to consider the arguments of respondents from China, Hungary, Korea, and Poland that cumulation is inappropriate because imports from those countries do not compete with domestically produced ball bearings. Competition arguments are also relevant to cumulation for threat analysis. See Steel Wire Rope from Argentina, Chile, India, Mexico, the People's Republic of China, Taiwan, and Thailand, Inv. Nos. 701-TA-305-306 and 731-TA-476-482 (Preliminary), USITC Pub. 2343 at 27 (December 1990). Nevertheless, we need not resolve such arguments because other grounds support our exercise of discretion not to cumulate.

[92] Acting Chairman Brunsdale does not join in this conclusion. She discusses the proper application of the negligible import exception in these investigations in her Additional Views.

[93] Another factor that we considered in our cumulation determination, pursuant to Commission precedent, was the existence of common relationships between exporters in some of the subject countries. See Coated Groundwood Paper from Austria, Belgium, Finland, France, Germany, Italy, the Netherlands, Sweden, and the United Kingdom, Inv. Nos. 731-TA-486-494 (Preliminary), USITC Pub. 2359 at 44 (February 1991). We do not consider the existence of cross-ownership relationships to provide a justification for cumulation in these investigations.

country. In each instance, we consider all statutory considerations applicable to these investigations.[94] We consider no single factor to be dispositive.

No reasonable indication of threat of material injury by reason of LTFV imports from Argentina

As is the case with most of the subject countries, imports from Argentina have a very small presence in the U.S. market. Market penetration of Argentine ball bearings has been well below 0.5 percent during the entire period of investigation, and both the volume and value of imports from Argentina declined dramatically during 1990.[95] Consequently, we conclude that there is no likelihood that penetration of imports from Argentina will increase to an injurious level. That the level of U.S. inventories of ball bearings from Argentina fell sharply during the period of investigation also militates against any finding of threat.[96]

There does not appear to be a significant probability that imports from Argentina will have a depressing or suppressing effect on domestic prices. In the overwhelming majority of comparisons between Argentine and U.S. ball bearings, the Argentine product was priced higher.[97] [98] Additionally, the very

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[94] Because these investigations do not concern agricultural products, statutory factor (IX) is inapplicable. Statutory factor (I), concerning subsidies, is applicable only to Turkey. Torrington's counsel indicated at the conference that, to its knowledge, no GATT member country had made a dumping finding concerning ball bearings from any of the 14 subject countries. Tr. at 81 (E. Stewart).

[95] Report, Tables 16, 27, 28, J-1.

[96] Report, Table 15.

[97] Report at A-66.

[98] Acting Chairman Brunsdale places little weight on evidence of underselling (continued...)

small fluctuations during the period of investigation in the ratio of cost of goods sold to net sales indicates that domestic prices generally have not been suppressed in relationship to costs.[99]

There is no indication that imports from Argentina -- or any of the other subject countries -- will retard efforts to develop a derivative or more advanced version of the like product. Ball bearing production processes and product features have changed little in recent years.[100]

We do not believe that the data showing increased capacity and declining capacity utilization in Argentina during the period of investigation supports an affirmative threat determination in light of other information showing that home market shipments are rising and that a very low percentage of Argentine production is exported to the United States.[101] In this case, we do not accord great significance to the fact that SKF, the sole producer of ball bearings in Argentina, owns ball bearing facilities in countries subject to these investigations and countries subject to the antidumping orders issued in the Antifriction Bearings investigations. As mentioned above in the discussion of the "related parties" issue, multinational operations and sourcing are common in the ball bearing industry, and tend to be motivated by the desire to utilize production facilities efficiently, rather than the

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[98](...continued)
or overselling in her analysis of price suppression or depression of domestic prices.

[99] Report, Table 10.

[100] See Report at A-13-14.

[101] Report, Table 16.

desire to benefit from unfair trade practices.[102] Moreover, the record in these investigations corroborates the assertions of those respondents operating multinationally that their foreign facilities produce principally for home markets.

Accordingly, we determine that there is no reasonable indication of threat by reason of LTFV imports from Argentina.

No reasonable indication of threat of material injury by reason of LTFV imports from Austria

Imports from Austria have a very small presence in the U.S. market. Market penetration of Austrian ball bearings has been at 0.3 percent or less throughout the period of investigation.[103] In light of the minuscule current import levels, we conclude that there is no likelihood that penetration of imports from Austria will increase to an injurious level. Similarly, the very low level of U.S. inventories of ball bearings from Austria militates against any finding of threat.[104]

Capacity in Austria has fallen significantly over the period of investigation and capacity utilization is quite high.[105] These factors also indicate the lack of threat posed by Austrian imports.

As previously discussed in the determination concerning Argentina, there is no indication that imports from Austria will retard efforts to develop a derivative or more advanced version of the like product. Also as discussed above, we do not accord great significance in this case to the fact that the

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[102] See Report at A-19-22.

[103] Report, Tables 28, J-1.

[104] Report, Table 15.

[105] Report, Table 17.

ball bearing producers in Austria are multinational concerns.

We note that the record does not contain information concerning pricing trends of ball bearings from Austria. But even assuming arguendo that ball bearings from Austria are underselling the domestically-produced product, we would still determine that there is no reasonable indication of threat by reason of LTFV imports from Austria, given the extremely low import penetration levels, declining capacity, and high capacity utilization.

No reasonable indication of threat of material injury by reason of LTFV imports from Brazil

Imports from Brazil have an insignificant presence in the U.S. market. Market penetration has been at 0.1 percent or less for each year in the period of investigation.[106] Exports to the United States fell in 1990 and are projected to decrease sharply in 1991.[107] These tiny import levels, together with the downward trends in import penetration, indicate that there is no likelihood that penetration of imports from Brazil will increase to an injurious level. Data concerning the trends and levels of U.S. inventories of ball bearings from Brazil similarly militates against any finding of threat.[108]

Both capacity and capacity utilization in Brazil fell during the period of investigation.[109] Assuming that any unused capacity would be utilized to increase exports to the United States, however, would be speculative given the

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[106] Report, Tables 28, J-1.

[107] Report at A-51.

[108] Report at A-47, Table 15.

[109] Report at A-51.

historic insignificance of the U.S. export market to Brazilian producers.[110]

Additionally, there does not appear to be any probability that imports from Brazil will have a depressing or suppressing effect on domestic prices. In all comparisons between Brazilian and U.S. ball bearings, the Brazilian product was priced higher.[111]

As previously discussed in the determination concerning Argentina, there is no indication that imports from Brazil will retard efforts to develop a derivative or more advanced version of the like product. Also as discussed above, we do not accord great significance in this case to the fact that the ball bearing producers in Brazil are multinational concerns.

For the foregoing reasons, we determine that there is no reasonable indication of threat of material injury by reason of LTFV imports from Brazil.

No reasonable indication of threat of material injury by reason of LTFV imports from Canada

Imports from Canada have not recently experienced any increase, much less a rapid increase, in United States market penetration. To the contrary, U.S. market penetration of imports from Canada has fallen throughout the period of investigation.[112] In light of these downward trends, we conclude that there is no likelihood that penetration of imports from Canada will increase to an injurious level.

We note that production capacity in Canada rose during the period of investigation. However, capacity utilization remains quite high.[113]

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[110] See Report, Table 18.

[111] Report at A-66.

[112] Report, Tables 28, J-1.

[113] Report at A-51, Table 19.

Therefore, these factors do not provide support for a determination of threat.

Prices for ball bearings imported from Canada generally increased significantly during the period of investigation.[114] Price comparisons between Canadian and U.S. ball bearings showed no consistent patterns of overselling or underselling.[115] Moreover, as previously discussed, data indicating that domestic prices have not been suppressed in relationship to costs indicates that imports from Canada generally have not had a price suppressing effect. Consequently, there is no basis to conclude that imports from Canada will have a depressing or suppressing effect on domestic prices.

U.S. inventories of Canadian ball bearings did increase throughout the period of investigation. Nevertheless, the absolute levels of inventories are too low to have any significant effect on the domestic market.[116]

As previously discussed in the determination concerning Argentina, there is no indication that imports from Canada will retard efforts to develop a derivative or more advanced version of the like product. Also as discussed above, we do not accord great significance in this case to the fact that the ball bearing producers in Canada are multinational concerns.

Again, numerous factors -- downward trends in market penetration, high capacity utilization rates, and the lack of any discernible effect on U.S. prices -- support a negative threat finding. We accordingly determine that there is no reasonable indication of threat by reason of LTFV imports from Canada.

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[114] Report at A-64, Tables 29, 30.

[115] Report at A-66.

[116] Report at A-47, Table 15.

No reasonable indication of threat of material injury by reason of LTFV imports from China

Market penetration of imports from China has been low. Official statistics compiled by the Commerce Department showed U.S. market penetration of Chinese imports at only 0.8 percent in 1990, an increase of a mere one-tenth of a percentage point from the previous year.[117] In light of the currently low penetration levels and low rates of increase, we do not believe that there is any likelihood that imports from China will rise to an injurious level.

The record does not contain information concerning the capacity of Chinese ball bearing manufacturing facilities.[118] An importer of Chinese ball bearings has stated, however, that Chinese ball bearing manufacturing facilities face severe raw material shortages.[119] This would indicate that, should any unused capacity exist, manufacturers may be unable to utilize such capacity to increase exports to the United States.

Purchasers and importers consistently reported that Chinese ball bearings were inferior in quality to U.S.-produced bearings and consequently could be used only in more limited applications.[120] The attenuated substitutability between Chinese and U.S.-produced ball bearings would limit the price depressing or suppressing effect that imports from China would have on the domestically produced product. In any event, price comparisons between

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[117] Report, Table J-1. The market penetration level and rate of increase reflected in the Commission's questionnaire data were even smaller than those reported based on Commerce data.

[118] Report at A-52.

[119] Tr. at 142 (Olson).

[120] Report at A-9-10; Confidential Report at A-121, A-124, A-125.

Chinese and U.S. ball bearings showed no consistent patterns of overselling or underselling.[121]

U.S. inventories of Chinese ball bearings did increase throughout the period of investigation. Nevertheless, the absolute levels of inventories are too low to have any significant effect on the domestic market.[122]

As previously discussed in the determination concerning Argentina, there is no indication that imports from China will retard efforts to develop a derivative or more advanced version of the like product. There was no allegation in the petition of any potential for product shifting by Chinese bearing manufacturers.

In light of the foregoing considerations, we determine that there is no reasonable indication of threat of material injury by reason of LTFV imports from China.

No reasonable indication of threat of material injury by reason of LTFV imports from Hong Kong

Imports from Hong Kong have an insignificant presence in the U.S. market. Market penetration has been at 0.1 percent or less for each year in the period of investigation.[123] The value of imports from Hong Kong fell in 1990.[124] These minuscule import levels, together with the downward trends in import penetration, indicate that there is no likelihood that penetration of Hong Kong imports will increase to an injurious level.

The petition alleges that no ball bearing manufacturers are located in

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[121] Report at A-66-67.

[122] Report at A-47, Table 15.

[123] Report, Tables 28, J-1.

[124] Report, Table 27.

Hong Kong, and that Hong Kong exports of ball bearings reported by the U.S. Customs Service originate in the People's Republic of China.[125] The information obtained during these investigations corroborated this assertion.[126] To the extent that are no Hong Kong bearing manufacturers, there is no unused capacity in that country available to increase exports. There is also no potential for product shifting. Moreover, to the extent that Hong Kong ball bearings share the attributes of Chinese ball bearings, they are similarly characterized by attenuated fungibility with the domestic product which limits their price depressing and suppressing effect.

U.S. inventories of ball bearings from Hong Kong did increase throughout the period of investigation. Nevertheless, the absolute levels of inventories are far too low to have any significant effect on the domestic market.[127]

As previously discussed in the determination concerning Argentina, there is no indication that imports from Hong Kong will retard efforts to develop a derivative or more advanced version of the like product.

The various threat considerations, particularly the tiny import penetration of Hong Kong ball bearings and the lack of any appreciable impact of Hong Kong imports on the domestic market, again support a negative determination. We consequently determine that there is no reasonable indication of threat of material injury by reason of LTFV imports from Hong Kong.

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[125] Petition at 30-31.

[126] See Report at A-52.

[127] Report at A-47, Table 15.

No reasonable indication of threat of material injury by reason of LTFV imports from Hungary

Hungary provides yet another instance of very small import penetration. The Commerce data indicates import penetration has not exceeded 0.2 percent for any year during the period of investigation.[128] These very low import penetration levels, in conjunction with the absence of any upward trend, indicate that there is no likelihood that market penetration will increase to an injurious level.

Capacity in Hungary has fallen during the period of investigation and capacity utilization has been stable and extremely high.[129] These factors also militate strongly against any finding of threat.

Importers and purchasers stated that Hungarian ball bearings, like those from China, were inferior in quality to the domestic product, and could not be used in as many applications.[130] Again, this attenuated substitutability would limit the price depressing or suppressing effect that Hungarian imports would have on the domestic product. Moreover, the prices of Hungarian ball bearings generally rose throughout the period of investigation.[131]

U.S. inventories of ball bearings from Hungary did increase throughout the period of investigation. Nevertheless, the absolute levels of inventories are too low to have any significant effect on the domestic market.[132]

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[128] Report, Table J-1. Import penetration figures for Hungary based on questionnaire data are no larger than those reported by Commerce.

[129] Report, Table 20.

[130] Report at A-9-10; Confidential Report at A-120.

[131] Report at A-64.

[132] Report at A-47, Table 15.

As previously discussed in the determination concerning Argentina, there is no indication that imports from Hungary will retard efforts to develop a derivative or more advanced version of the like product.

The foregoing considerations indicate that there is no basis to conclude that Hungarian imports pose imminent danger to the domestic industry. Accordingly, we have determined that there is no reasonable indication of threat of material injury by reason of LTFV imports from Hungary.

No reasonable indication of threat of material injury by reason of LTFV imports from Korea

Although it has risen during the period of investigation, U.S. market penetration of imports from Korea remains well under 1 percent. The increase in penetration of imports from Korea between 1989 and 1990 was minimal.[133] We believe that both the level and the rate of increase of market penetration of Korean imports are too low to provide any likelihood of these imports rising to an injurious level and presenting any real and imminent threat of material injury.

Korean capacity increased substantially during the period of investigation and capacity utilization fell slightly. Nevertheless, home market shipments grew significantly and are projected to increase at a high rate. Moreover, the significance of the United States as a Korean export market has diminished considerably.[134] These trends lead us to believe that the presence of increased or unused capacity in Korea is unlikely to result in a significant increase in exports to the United States.

Price comparisons showed that Korean ball bearings undersold domestic

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[133] Report, Tables 28, J-1.

[134] Report, Table 21.

products.[135] Yet the price depressing or suppressing effect of Korean imports is questionable. Prices for Korean ball bearings -- as did those for the domestic product -- generally increased throughout the period of investigation.[136] Additionally, as previously discussed, data indicating that domestic prices have not been suppressed in relationship to costs indicates that imports from Korea generally have not had a price suppressing effect.

U.S. inventories of ball bearings from Korea did increase throughout the period of investigation. Nevertheless, the absolute levels of inventories are too low to have any significant effect on the domestic market.[137]

As previously discussed in the determination concerning Argentina, there is no indication that imports from Korea will retard efforts to develop a derivative or more advanced version of the like product. Also as discussed above, we do not accord great significance in this case to the fact that some ball bearing producers in Korea are affiliated with multinational concerns.

Our examination of the foregoing factors indicates that it is highly unlikely that Korea will increase materially its toehold on the domestic market. Accordingly, we determine that there is no reasonable indication of material injury by reason of LTFV imports from Korea.

No reasonable indication of threat of material injury by reason of LTFV imports from Mexico

Market penetration of imports from Mexico has been at 0.6 percent or less throughout the period of investigation. The increase in market

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[135] Report at A-67.

[136] Report at A-64.

[137] Report at A-47, Table 15.

penetration between 1989 and 1990 was modest.[138] Again, we believe that both the level and the rate of increase of market penetration of imports from Mexico are too low to provide any likelihood of these imports rising to an injurious level and presenting any real and imminent threat of material injury. Data showing stable capacity levels and very high capacity utilization rates demonstrate that there is little likelihood of a significant increase in imports to the United States.[139] The levels of U.S. inventories of ball bearings from Mexico are too low to have any substantial effect on the domestic market.[140]

Prices for ball bearings imported from Mexico generally increased during the period of investigation.[141] Price comparisons between Mexican and U.S. ball bearings showed no consistent patterns of overselling or underselling.[142] As previously discussed, data indicating that domestic prices have not been suppressed in relationship to costs indicates that imports from Mexico generally have not had a price suppressing effect. Consequently, there is no basis to conclude that imports from Mexico will have a depressing or suppressing effect on domestic prices.

As previously discussed in the determination concerning Argentina, there is no indication that imports from Mexico will retard efforts to develop a derivative or more advanced version of the like product. Also as discussed

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[138] Report, Tables 28, J-1.

[139] Report, Table 22.

[140] Report, Table 15.

[141] Report at A-64.

[142] Report at A-67-68.

above, we do not accord great significance in this case to the fact that the Mexican producer of subject ball bearings is a multinational concern.

Our examination of the foregoing factors leads us to conclude that there is no reasonable indication of threat of material injury by reason of LTFV imports from Mexico.

No reasonable indication of threat of material injury by reason of LTFV imports from Poland

Imports from Poland play a very minor role in the U.S. ball bearing market. The Commerce data indicates import penetration has not exceeded 0.1 percent for any year during the period of investigation.[143] These very low import penetration levels, in conjunction with the absence of any upward trend, supports the conclusion that there is no likelihood that market penetration will increase to an injurious level.

Capacity in Poland has fallen during the period of investigation and capacity utilization has been at high levels.[144] These factors also militate against any finding of threat.

Importers and purchasers stated that ball bearings from Poland share the quality attributes of Hungarian ball bearings.[145] This would indicate that Polish ball bearings are characterized by the same attenuated substitutability with domestic product typical of Hungarian ball bearings, which similarly limits their price depressing or suppressing effect on the domestic product. Prices of Polish ball bearings displayed mixed price trends throughout the

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[143] Report, Table J-1. Import penetration figures for Poland derived from the Commission's questionnaire data are no larger than those reported by Commerce.

[144] Report, Table 23.

[145] Report at A-9; see Confidential Report at A-119.

period of investigation.[146]

U.S. inventories of ball bearings from Poland did increase throughout the period of investigation. Nevertheless, the absolute levels of inventories are far too low to have any significant effect on the domestic market.[147]

As previously discussed in the determination concerning Argentina, there is no indication that imports from Poland will retard efforts to develop a derivative or more advanced version of the like product. There is no potential for product shifting by Polish bearing manufacturers.[148]

The foregoing considerations indicate that there is no basis to conclude that Polish imports pose any imminent danger to the domestic industry. Accordingly, we have determined that there is no reasonable indication of threat of material injury by reason of LTFV imports from Poland.

No reasonable indication of threat of material injury by reason of LTFV imports from Spain

Questionnaire data show that imports from Spain have a somewhat higher U.S. market penetration than imports from most of the subject countries. Nevertheless, imports from Spain have never had a market penetration in excess of 1.0 percent, and market penetration did not increase between 1989 and 1990.[149] In light of the relatively low levels of market penetration, and the lack of any recent upward trend, we believe that there is no likelihood that market penetration will increase to an injurious level. Stable production capacity and extremely high capacity utilization rates indicate that there is

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[146] Report at A-64.

[147] Report at A-47, Table 15.

[148] See Hungarian and Polish Respondents' Postconference Brief at 30-31.

[149] Report, Table 28.

little likelihood of a significant increase in imports to the United States.[150] That levels of U.S. inventories of ball bearings from Spain fell during the period of investigation also militates against any threat finding.[151]

Prices for ball bearings imported from Spain showed mixed trends during the period of investigation.[152] Price comparisons between Spanish and U.S. ball bearings showed no consistent patterns of overselling or underselling.[153] As previously discussed, data indicating that domestic prices have not been suppressed in relationship to costs indicates that imports from Spain generally have not had a price suppressing effect. Consequently, there is no basis to conclude that imports from Spain will have a depressing or suppressing effect on domestic prices.

As previously discussed in the determination concerning Argentina, there is no indication that imports from Spain will retard efforts to develop a derivative or more advanced version of the like product. Also as discussed above, we do not accord great significance in this case to the fact that Spanish producers of ball bearings include multinational concerns.

Our examination of the foregoing factors leads us to conclude that there is no reasonable indication of threat of material injury by reason of LTFV imports from Spain.

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150 Report, Table 24.

151 Report at A-47.

152 Report at A-64.

153 Report at A-68.

No reasonable indication of threat of material injury by reason of LTFV imports from Taiwan

The Commerce data show ball bearing imports from Taiwan to have greater U.S. market penetration than any of the other subject countries except for Canada. Nonetheless, the 1990 market share of 1.4 percent is not high, and market penetration increased by only two-tenths of one percent over 1989 levels.[154] Consequently, we conclude that market penetration is unlikely to rise to an injurious level. Confidential information concerning capacity utilization demonstrates that there is little likelihood of a significant increase in exports to the United States.[155]

Prices for ball bearings imported from Taiwan generally increased during the period of investigation.[156] Price comparisons between Taiwanese and U.S. ball bearings showed no consistent patterns of overselling or underselling.[157] As previously discussed, data indicating that domestic prices have not been suppressed in relationship to costs indicates that imports from Taiwan generally have not had a price suppressing effect. Consequently, there is no basis to conclude that imports from Taiwan will have a depressing or suppressing effect on domestic prices.

As previously discussed in the determination concerning Argentina, there is no indication that imports from Taiwan will retard efforts to develop a derivative or more advanced version of the like product. Also as discussed

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[154] Report, Table J-1. The questionnaire data show significantly lower market penetration for Taiwan than do the Commerce data.

[155] Report, Table 25.

[156] Report at A-64.

[157] Report at A-68.

above, we do not accord great significance to the fact that some of the ball bearing producers in Taiwan are affiliated with multinational concerns.

Our examination of the foregoing factors indicates that it is highly unlikely that Taiwan will increase materially its extremely modest import penetration. Accordingly, we determine that there is no reasonable indication of material injury by reason of LTFV imports from Taiwan.

No reasonable indication of threat of material injury by reason of LTFV or subsidized imports from Turkey

Turkey provides yet another instance of extremely low levels of market penetration. Market penetration was no greater than 0.2 percent for each year in the period of investigation.[158] This pattern of microscopic import penetration supports the conclusion that there is no reasonable likelihood that the market penetration will increase to an injurious level. Confidential information concerning capacity utilization, as well as sharply increasing home market shipments, demonstrates that there is little likelihood of a significant increase in exports to the United States.[159] Additionally, the absolute levels of U.S. inventories of ball bearings from Turkey are far too low to have any significant effect on the domestic market.[160]

Prices of imports from Turkey generally decreased during the period of investigation.[161] Additionally, Turkish ball bearings generally undersold the domestic product.[162] The possible price suppressing or depressing effects of

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[158] Report, Tables 28, J-1.

[159] Report, Table 26; Tr. at 150 (Aslan).

[160] Report, Table 15.

[161] Report at A-64.

[162] Report at A-69.

these practices are significantly mitigated, however, by the very small volumes of Turkish ball bearings present in the market.

Turkey is the one subject country involving allegations of subsidies. The subsidies are alleged to be export subsidies.[163] We find that in light of the low import levels, lack of significant price effects, and increasing home market sales, the existence of alleged export subsidies alone does not mandate an affirmative threat determination.

As previously discussed in the determination concerning Argentina, there is no indication that imports from Turkey will retard efforts to develop a derivative or more advanced version of the like product. There appears to be no potential for product shifting by the Turkish bearing manufacturer.[164]

The extremely small presence of Turkish ball bearings in the U.S. market, in conjunction with the extremely low probability that this presence will be increased significantly, support a negative finding on threat. We consequently determine that there is no reasonable indication of threat of material injury by reason of LTFV or subsidized imports from Turkey.

No reasonable indication of threat of material injury by reason of LTFV imports from Yugoslavia

Yugoslavia provides our final instance of insignificant import penetration. Market penetration was no greater than 0.2 percent for each year during the period of investigation.[165] We again conclude that in light of such small market penetration there is no likelihood that penetration of

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[163] Report at A-2-4. The petitioner did not furnish any estimate of the total ad valorem net subsidy provided to Turkish exporters. Report at A-4.

[164] See Tr. at 153 (Aslan).

[165] Report, Tables 28, J-1.

Yugoslav imports will rise to an injurious level.

Importers and purchasers stated that Yugoslav ball bearings, together with those from China, possessed the lowest quality attributes among those bearings subject to this investigation.[166] As was the case with the Chinese, Hungarian, and Polish ball bearings, this indicates that Yugoslav ball bearings are characterized by attenuated substitutability with the domestic product which limits any price depressing or suppressing effect on the domestic product. The potential price depressing or suppressing effect of Yugoslav ball bearings is further limited by their very small presence in the U.S. market.

U.S. inventories of ball bearings from Yugoslavia did increase throughout the period of investigation. Nevertheless, the absolute levels of inventories are too low to have any significant effect on the domestic market.[167]

As previously discussed in the determination concerning Argentina, there is no indication that imports from Yugoslavia will retard efforts to develop a derivative or more advanced version of the like product.

The record in these preliminary investigations does not contain any information concerning the identity of Yugoslav producers, or concerning capacity and capacity utilization in Yugoslavia. But even assuming arguendo that there is substantial unused capacity in Yugoslavia, we would still determine that there is no reasonable indication of threat by reason of LTFV imports from Yugoslavia, given the extremely low import penetration levels and

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[166] Report at A-9-10; see Confidential Report at A-119.

[167] Report at A-47, Table 15.

lack of significant pricing effects of imports from Yugoslavia.

CONCLUSION

As the foregoing discussion indicates, we have determined that the record as a whole contains clear and convincing evidence that there is neither material injury nor threat of material injury by virtue of LTFV or subsidized imports from any of the subject countries. Moreover, there is no likelihood that contrary evidence will arise in any final investigations. Accordingly, we have reached negative determinations with respect to each of the subject countries.

Additional Views of Acting Chairman Anne E. Brunsdale

Ball Bearings from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, the Republic of Korea, Spain, Taiwan, Turkey, and Yugoslavia.

Inv. Nos. 701-TA-307 and 731-TA-498-511 (Preliminary)

I agree with the majority of my colleagues' conclusion that there is no reasonable indication that the domestic industry producing ball bearings is materially injured or threatened with material injury by reason of allegedly dumped imports from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, the Republic of Korea, Spain, Taiwan, Turkey, and Yugoslavia. I join their discussion of like product and domestic industry, condition of the domestic industry, and threat to the domestic industry. I do not, however, base my negative determinations strictly on the condition of the domestic industry or the fact that industry trends have been positive in recent years. Rather, my determinations are based on the fact that there is no reasonable indication that a domestic industry was materially injured by reason of the allegedly dumped imports.

An industry can be profitable or "healthy" and still be materially injured by dumped imports. For example, if an industry's sales have increased, but they would have increased much more and the industry would have employed many more workers had imports not been dumped in the U.S. market, then that industry is likely to be materially injured by reason of the

dumped imports. Otherwise, relief from unfairly traded imports would be restricted to declining industries.

On the other hand, it must be clear that dumped imports -- not other factors -- are responsible for the material injury. During a recession, when many industries become less profitable, it is particularly important to follow the instructions of the statute and "evaluate all relevant economic factors...within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[1] The task of isolating the effects of dumped imports from the effects of all other economic variables is not easy. That is why a rigorous analytical framework is essential to sort out the enormous quantity of data gathered during an investigation.

The majority opinion fully addresses the condition of the domestic ball bearing industry. However, there is one particular event that is important in understanding the dynamics of the industry in the last few years. In 1989, dumping duties were imposed on ball bearings from numerous countries that are not part of these investigations.[2] As a result, imports from those countries declined considerably, both in absolute terms and in terms of market share, and the average unit value of those

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[1] During an expansion, it is possible to err on the other side, turning away profitable industries, that are, in fact, injured by dumped imports.

[2] See 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).

imports increased substantially.[3] When duties are imposed on dumped products, sales of both domestic products and "fair" imports generally increase. Despite the increase in the market share of subject imports from the fourteen countries from 4.8 percent in 1988 to 7.4 percent in 1990, there was an overall decline in total imports during that period and a substantial decline in their market share.[4]

Cumulation

The Commission is instructed to cumulate imports from two or more countries for the purpose of making its injury determination. However, the Commission may make an exception if imports are "negligible and have no discernable adverse impact on the domestic industry."[5] In deciding if imports are negligible the Commission is instructed to consider (1) the volume and market share of imports; (2) whether sales have been isolated or sporadic and (3) whether a small quantity of imports can result in price suppression or depression, because of the price sensitivity of the product.

In this case dumped imports are alleged to come from fourteen different countries having market shares in 1990 that

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[3] Report at B-36 and A-30. I note that unit value increases of shipments to producers are used as a proxy for general unit value increases.

[4] Total imports fell from 38.6 percent to 32.2 percent over the period of investigation. See Report at B-36.

[5] See 19 U.S.C. 1677(7)(C)(v)

range from a high of 2.4 percent for Canada to a low of less than 0.05 percent for Hong Kong.[6] The individual market shares of imported ball bearings from Argentina, Brazil, Hungary, Hong Kong, Poland, Turkey, and Yugoslavia, never rose above .2 percent during the entire period of investigation. The market share of imports from Austria reached a high of .4 percent in 1989, but those imports fell in terms of both value and market share in 1990. Likewise, the market share of imports from Spain peaked at .8 percent in 1989, but fell to .4 percent in 1990. Imports from Korea, Mexico, and China reached their highest penetration levels of .5, .6, and .8 percent, respectively, in 1990. Finally, the market share of imports from Taiwan doubled during the period of investigation to 1.4 percent, while the market share of Canadian imports fell slightly over that period to 2.4 percent. With the possible exception of imports from Hong Kong, Poland, and Turkey, sales do not appear to be sporadic.

Quality differences between the subject imports and the domestic like product minimize any adverse impact of dumping on the domestic industry and therefore are relevant to the question of negligible imports. Staff reports that imported ball bearings from most of these countries are comparable to domestic ball bearings. On the other hand, it reports general agreement that the quality of Chinese ball bearings is well below that of

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[6] Because the import data I rely on are taken from the Department of Commerce's official statistics, while domestic production data are taken from incomplete questionnaire responses, if anything, the market shares of imports are overstated. See Report at B-32.

domestic ball bearings. There are also some allegations that the quality of Eastern European ball bearings is relatively low.

Only in extraordinary circumstances could I find the strikingly low levels of import penetration of the vast majority of respondents to result in price suppression or depression because of price sensitivity in the domestic market. There is no evidence on the record in this case that would lead me to believe that imports from Argentina, Austria, Brazil, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, the Republic of Korea, Spain, Turkey, and Yugoslavia are anything but negligible.

Based on the above analysis, the only imports that I cumulate in this case are ball bearings from Taiwan and Canada. There are circumstances in which it would be appropriate to consider imports with a market share of 1.4 percent negligible. In this case, however, Taiwan imports appear to be relatively close substitutes for the domestic like product, sales have not been sporadic, and sales have increased over the entire period of investigation. Moreover, because these are preliminary investigations, on any close question I give the benefit of the doubt to petitioner. Canada's market share of 2.4 percent is too large to be considered negligible in this case.

Material Injury by Reason of Dumped Imports

Given my decision that imports from all countries other than Taiwan and Canada are negligible and have no discernable adverse impact on the domestic industry, my analysis in this section is

restricted to the effects of allegedly dumped imports from Canada and Taiwan. I note, however, that were I to conduct an individual injury analysis for non-cumulated imports from each other country, the same factors discussed below would apply, and I would conclude in each case that there is no reasonable indication of material injury by reason of allegedly dumped imports from any of those countries.

In considering whether or not an industry is materially injured by reason of the dumped imports, the Commission is required to consider (1) the volume of subject imports, (2) the effect of those imports on the price of the domestic like product, and (3) the impact of those imports on domestic producers.[7]

The Market Share of Unfair Imports and the Dumping Margin. The domestic market share accounted for by the unfairly traded imports and the size of the dumping margin are important variables for my analysis. The higher the dumping margin, the greater the difference between the dumped price of the imports and their price at fair value. The larger the market share of unfairly traded imports, the greater the effect of that price reduction on the demand for the domestic like product.

In this case, subject imports account for, at most, 3.8 percent of the domestic market. This compares to a 3.4 percent market share at the beginning of the period of investigation.

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[7] See 19 U.S.C. 1677(7)(B).

The alleged dumping margins are 7 to 22 percent for Canada and 5 to 108 percent for Taiwan. This amounts to a weighted average alleged dumping margin of 6 to 56 percent.[8] Of course, because these are preliminary investigations, I conduct my analysis considering only the highest alleged dumping margin.

Substitutability. The degree of substitutability between the domestic like product and the subject imports is one of the most important considerations in the analysis of causation. If the products are close substitutes, customers will be more likely to switch to buying dumped imports if their price falls relative to the price of the domestic like product. If products are perceived as being different then relative price changes will not affect purchases to the same extent.

The record indicates that imported ball bearings from Canada and Taiwan are close substitutes for domestic ball bearings.[9] Therefore, one would expect that if the price of the subject imports increased, customers would readily switch to buying ball bearings from either domestic firms or other foreign firms.

The Relationship between Quantity Demanded and Price. If the quantity demanded of a product is not very sensitive to changes

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[8] A dumping margin of 56 percent means that the fairly traded price of the subject imports would be at most 56 percent higher in the absence of dumping.

[9] I reach this conclusion even though some purchasers have reported differences in lead times, and some customers prefer to deal with specific firms.

in price, then lower prices will not generate many new sales. In such cases, sales of dumped imports are likely to have been made at the expense of both domestic producers and/or other foreign firms.

The record indicates that the demand for ball bearings is not very sensitive to changes in price. The basic reason is that ball bearings make up only a small fraction of the cost of final goods. In addition, ball bearings are essential inputs in many products, and there are few substitutes for ball bearings. Therefore, a reduction in the price of ball bearings as a result of dumping is unlikely to have generated many new sales. Likewise, a small increase in the price of ball bearings is unlikely to limit customer purchases.

The Ability of Firms to Increase Output. Under the scenario outlined above which is most favorable to petitioner, in the absence of dumping, Canadian and Taiwanese producers would not have made any sales in the domestic market. If the subject imports were no longer in the domestic market, additional sales would accrue to either domestic firms or other foreign firms, if they could increase production. If they could not increase production, the price of ball bearings would be likely to rise. Since domestic capacity to produce ball bearings increased between 1989 and 1990, despite the substantial increase in domestic producers' sales, there is currently excess capacity. In addition, because sales of foreign firms covered in the

previous investigations have fallen substantially in recent years, they could likely increase sales in the U.S. market. Therefore, it is likely that dumping of ball bearings had a greater effect on domestic producers' volume of sales than on the price.

Even assuming, albeit unrealistically, that domestic manufacturers would have gotten all the additional sales, if not for the dumped imports, they would still have increased output by a relatively small percentage. Given the current state of the ball bearings industry, as detailed in the majority's opinion, I do not believe that this constitutes material injury.

Conclusion

I find no reasonable indication that the domestic industry producing ball bearings is materially injured by reason of imports from Canada and Taiwan. As regards Argentina, Austria, Brazil, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, the Republic of Korea, Spain, Turkey, and Yugoslavia, I find that imports from each of these countries had a negligible impact on the domestic market and therefore are not causing material injury.

Dissenting Views of Commissioner Don Newquist

Unlike my colleagues, I determine there is a reasonable indication that the domestic industry is experiencing material injury by reason of alleged unfair imports. Their negative determinations deny petitioner the opportunity to pursue credible allegations of injury by reason of alleged unfair imports. They confound the role of preliminary investigations. These are not "unnecessary investigations" involving minor trade flows, products of peripheral importance, or frivolous allegations of unfairness. In fact, a full page of the Commission's report is required to list all the Title VII investigations, 332 investigations, import relief and national security investigations regarding this industry.

Such negative determinations cast doubt on the predictability and consistency of the Commission's administration of this jurisdiction. And, they raise questions about the Commission's understanding of what Congress intended preliminary investigations to do. Those who have often sought import relief and know this administrative forum well, such as the petitioner and others, like the steel industry, must wonder at these determinations. They must also ponder the implications for future Title VII relief.

In my view, the Commission's task in preliminary investigations is not difficult. Its practice in previous investigations has been to reach a negative determination only if "(1) the record as a whole contains clear and convincing evidence

that there is no material injury or threat of such injury; and (2) no likelihood exists that contrary evidence will arise in a final investigation." [1]

Neither of these requirements is met in these investigations.[2]

Domestic Industry

In these investigations I find one like product, consisting of ball bearings and parts thereof.[3] The inclusion of parts is consistent with the Commission's determination in the Antifriction Bearings investigations, completed in March 1989.[4] The factors supporting the inclusion of parts in those investigations have not changed in the current record. Therefore, I find the domestic industry to include all domestic producers of ball bearings and

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[1] American Lamb Co. v. United States, 785 F.2d 994, 1001-1004 (Fed. Cir. 1986).

[2] Information contained in these views is from the Commission's public report, unless otherwise noted.

[3] I conclude that aerospace bearings, miniature precision instrument ball bearings, and water pump bearings do not constitute a individual like products separate from other types of ball bearings. My basis for this determination is the absence of any clear dividing line in terms of characteristics and uses of these bearings which warrants considering them as separate like products.

[4] 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). ("Antifriction Bearings").

parts thereof, both foreign-owned and U.S.-owned.[5] [6]

Material Injury

Before reaching my analysis of the condition of this industry, I offer some preliminary observations about the quality of the information in view of the American Lamb standard. The information on the condition of this industry is based for the most part on data received from responses to Commission questionnaires. This is consistent with the approach in the Antifriction Bearings investigations on this product. The Commission received usable responses from 25 producers of ball bearings and/or parts thereof which staff estimates account for 68 percent, by value, of 1989 US shipments of ball bearings and parts thereof.

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[5] A number of domestic ball bearing producers import, or are related to exporters of ball bearings, from one or more of the 14 countries in these investigations. Generally, the related parties provision may be employed to avoid distortion that might result from including related parties whose operations are shielded from the effects of the subject imports.

In light of the substantial presence in the market of a number of these producers and the generally small ratio of subject imports to their domestic shipments, the exclusion of these related parties would present a distorted picture of the state of the industry. Also, there is no information to suggest that such producers are shielded from the impact of the subject imports. I also note that the Commission did not exclude any related parties from the domestic industry in the Antifriction Bearings investigations.

[6] Respondents raise a related allegation that the petitioner failed to demonstrate sufficient industry support for its petition to satisfy statutory standing requirements. Pending the conclusion of litigation regarding Suramerica de Aleaciones Laminadas, C.A. v. United States, 746 F. Supp. 139 (CIT 1990), appeal docketed, App. No. 91-1015 (Fed. Cir., Oct. 5, 1990), I will continue to defer to the statutory authority of the Department of Commerce to determine the sufficiency of petitions under the statute.

While this is perhaps above-average coverage for a preliminary investigation, the Commission knows nothing which is "clear and convincing" about the performance of producers accounting for one-third of 1989 US shipments of ball bearings and parts. As the report approved by the Commission states, there are no questionnaire responses from additional "firms suspected of being significant producers of ball bearings" or from "major producers of ball bearing components." A record which lacks data regarding both major parts producers and "suspected" significant bearings producers is legally flawed and cannot support negative preliminary determinations.

Fatal deficiencies aside, a hands-on review of the information we do have provides a reasonable indication of material injury as contemplated by Congress and our reviewing courts. First, apparent US consumption of ball bearings and parts increased gradually from 1988 to 1990, first rising substantially between 1988 and 1989, and then slightly, by just 3 percent, between 1989 and 1990.

Meanwhile, US capacity to produce ball bearings increased slightly, from 257 million bearings in 1988 to nearly 266 million bearings in 1989, then further increased to 333 million bearings in 1990. Production increased from 201.4 million bearings in 1988 to 238.9 million bearings in 1990. But, production lagged capacity increases and resulted in a decline in capacity utilization from 80 percent in 1989 to 72 percent in 1990. Parts capacity increased in tandem with complete bearing capacity, but parts production declined over the three-year period and capacity utilization fell sharply, from 67 percent in 1988 to 53 percent in 1990. During the

period there was both expansion of existing capacity as well as new plants. At the same time, there were plant closings. [7]

US shipments of complete ball bearings increased from 1988 to 1990, both in terms of volume and value. Over the period of investigation, complete bearings shipments increased 14 percent by value. Likewise, for the same period, parts shipments increased 9 percent by value.

Thus, an unstudied view of production, capacity, and shipment data seems to point to favorable operations. However, key to my conclusions are the concerns raised by rapidly growing domestic producers' inventories. Available information from 21 responding firms shows that inventories of completed bearings almost doubled from 1988 to 1990. At the end of 1990 these levels represented 17 percent of US shipments; by comparison the ratio was 12 percent in 1989, and 10.5 percent in 1988. Worse trends emerge for parts, with inventories increasing to 26 percent of US shipments in 1990, compared with 18 percent in 1989, and 20 percent in 1988.

From another perspective, almost one-half of the increase in domestic production during 1990 remained in inventories at year-end. And, this is understated since more producers supplied

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[7] The Commission has no information on the relationship between increased capacity and the fact that the "market for ball bearings is a global one....dominated by several multinational companies....[which] have established production facilities worldwide...."

In view of no information on world market strategies and corresponding production plans for producers' US facilities, excess US capacity in the short term cannot be characterized clearly as overexpansion, and thus an indication of industry over optimism.

Again, the Commission simply lacks the information to assess the exact implications of such growth for this particular industry.

production data than inventory data. While some producers offered explanations for inventory build-up, there are no quantities accompanying those explanations. Again, the Commission lacks important data. As the record stands, the majority cannot cite production increases to signal prosperity.

And the inventory build-up magnifies another important adverse development. Uncontradicted information shows a sharply eroding level of bearing orders industry-wide during 1990. Orders for the last quarter of 1990 were almost one-third fewer than for the same period in 1989. The backlog of orders on hand displays the same decreasing trend.[8]

Aggregate data for 1990 indicate there were about 150 fewer production and related workers than for 1989; data on hours worked were also slightly lower in 1990. Detailed information from firms concerning their production and related workers confirms industry employment problems. These firms reported that during 1990 more than 500 workers faced either permanent or indefinite layoffs. Thus, 6 percent of these employees working at the end of 1989 experienced permanent or indefinite layoffs during 1990, hardly a sign of a robust industry.

Net sales for reporting producers increased 13 percent from $1.36 billion in 1988 to $1.54 billion in 1989, and remained stable in 1990, increasing by 3.7 percent to $1.59 billion. Yet, operating income in 1990 was $87.0 million, down from $117.1 million in 1989, and just below 1988 operating levels. Operating

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[8] Petitioner's Postconference Brief, pp. 54-56, and Table 7.

income as a share of net sales was 5.5 percent in 1990, compared with 7.6 percent in 1989 and 6.4 percent in 1988.

On their face alone these data provide a reasonable indication of financial difficulties. A more critical review of profit and loss data further shows that while sales increases in 1989 resulted from price increases over 1988 levels, the 1990 sales volume was achieved only because volume increases managed to offset a 7 percent sales price decrease.

And, the aggregate industry performance is not broad-based as some data suggest. Five domestic producers, accounting for only one third of sales, enjoyed 94 percent of operating profits for 1990. Thus, any notion that only 9 producers of the 24 reporting show operating losses is seriously misplaced. Obviously, a far greater number of reporting domestic producers are showing very marginal results.

Review of other measures of performance provides further indications of injury. For 1990 the operating return on book value of fixed assets was 13 percent, well below the 19 percent return in 1989 and 16.7 percent in 1988. Information gathered also suggests an inability to raise capital and justify spending based on projected return on investment.

Finally, as a part of my analysis in this investigation, I surveyed the Commission's views in the Antifriction Bearings investigations. There are a number of important distinctions which raise further questions about the adequacy of this preliminary record and the Commission's understanding. In those final cases, the Commission based its decision on fewer questionnaire responses

than we have here. But, those questionnaires included responses from both completed bearings and parts producers; there were no separate data for parts and components producers as in these preliminary investigations. Therefore, the Commission does not know the extent of questionnaire coverage for parts producers in the earlier investigations. Thus, "better coverage" does not necessarily exist in these investigations to support negative determinations. Rather, the available data instead raise substantial unanswered questions about the industry's performance.

Also, the Commission in those final investigations was mindful of the role of important captive producers in the analysis of the performance of the ball bearing industry:

> New Departure Hyatt's status as essentially a captive producer for General Motors has been considered by the Commission in its analysis of both the ball bearing and the cylindrical roller bearing industry....It is sufficient to note that the Commission's Report fully sets forth information regarding the industry as a whole, New Departure Hyatt in particular, and where warranted, all producers with the exception of New Departure Hyatt. This does not suggest that captive producers are not part of the domestic industry, but that analysis of the condition of the domestic industry may take into account aberrations brought about by unique circumstances when they are apparent in the record.[9]

I am unaware of any careful analysis of the role of captive producers in the record of these preliminary investigations, and find it odd that the Commission majority would find no material injury in these investigations without this information which was obviously carefully reviewed and considered in earlier

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[9] Antifriction Bearings, "Views of Commissioner Eckes, Commissioner Lodwick, Commissioner Rohr, and Commissioner Newquist," at p. 46, fn. 94. See also discussion in those views at p. 68.

investigations.

Finally, I note the questions raised by the comparison of operating ratios for the two sets of investigations. In the final investigations, operating margins declined from 8.7 percent in 1985 to 6.7 percent for the first nine months of 1988. But, in this preliminary, operating margins are at 5.5 percent for 1990. I am unable to reconcile how a margin of 6.7 percent supports a final determination of injury, but a much lower margin does not provide even an indication of injury.

Based on my analysis of the information in these investigations, the condition of this industry is weakening, and the record supports a finding of a reasonable indication of material injury.

The record cannot, as a matter of law, support a finding of no material injury. The uncertainty of the quality of data in the record is profound in my view. There is no "clear and convincing" evidence of no material injury. And, without information on producers accounting for one-third of domestic production, I cannot conclude that no likelihood exists that contrary evidence will arise in a final investigation.

Material Injury by Reason of Subject Imports

In determining whether there is material injury by reason of the imports subject to investigation, the Commission is required to cumulatively assess the volume and effect of imports from two or more countries 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 US market. I have determined that none of the imports of merchandise in these investigations are negligible[10] and thus, make my causation analysis on the cumulated impact of all imports subject to investigation.[11]

In making preliminary determinations, the Commission determines whether there is a reasonable indication that the material injury is "by reason of" the subject imports. The Commission must consider the volume of imports, their effect on prices for the like product, and their impact on domestic producers.

First, the Commission coverage of import data is incomplete, and thus, import volumes based on questionnaire responses are understated. According to staff estimates, the Commission has usable data on only about 60 percent of imports of bearings and parts.

Based on such incomplete questionnaire data, imports of subject bearings and parts increased from $37.9 million in 1988 to $91.8 million in 1989 and decreased slightly to $86.5 million in 1990. These imports increased their market share markedly in 1989, rising from 2.8 percent of the market in 1988 to 5.5 percent in 1989, maintaining that share in 1990.

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[10] Within the context of this industry these imports are not negligible. The market for these products is price sensitive; they are fungible; and, I am satisfied that sales transactions involving these imports are not isolated or sporadic. I am also mindful of the history of this industry and unfair import competition. 19 USC 1677(7)(C)(v) and relevant legislative history.

[11] My rationale for cumulating these imports is the same as that expressed in the majority views regarding ball bearings in the final Antifriction Bearings investigation at pp. 60-65.

I view the price impact of these imports much as I did in the Antifriction Bearings investigations:

> The characteristics of the market for ball bearings suggest that the increase in import volume did cause prices to decline, or suppressed price increases, over the period of investigation. Because the demand for ball bearings is relatively price inelastic, the increase in subject imports was not absorbed by increased demand. Rather, increased imports displaced domestic shipments and put downward pressure on domestic prices.[12]

Information contained in Tables 29 and 30 of the Commission's report suggests that for the higher volume bearings, the US prices declined very sharply in the last quarter of 1990, eclipsing price gains made during 1990 and during 1989 as well. Overall, 478 quarterly price comparisons were possible between US bearings and imports from all the subject countries, except one. Of these, 274 comparisons showed underselling by the imported products. Further, information gathered in lost sales discussions supports the suppressing role of imports. In this context and for purposes of this preliminary investigation, the volume of subject imports is significant.

Consumption of ball bearings in the US market is at best soft, increasing only 3 percent last year. Information on orders and order backlogs referred to earlier strongly indicates that this minimal growth occurred early in 1990, and is now in the process of contracting. Sharply increasing domestic inventory levels confirm this as well.

Under such circumstances, increased supplies of imported ball bearings, which are fungible goods, results in indications of

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[12] Antifriction Bearings at p. 68.

depression and suppression of selling prices. Decreased prices are reflected in reduced profitability for domestic producers in 1990, as sales were sustained only by volume increases as prices declined by 7 percent.

Conclusion

Based on the above analysis, I find that there is a reasonable indication of material injury to the domestic industry by reason of the subject imports.

INFORMATION OBTAINED IN THE INVESTIGATIONS

Introduction

On February 13, 1991, a petition was filed with the U.S. International Trade Commission (Commission) and the U.S. Department of Commerce (Commerce) by counsel for the Torrington Company (Torrington), Torrington, CT. The petition alleged that imports of ball bearings, mounted or unmounted, and parts thereof[1] from Turkey are being subsidized by the Government of Turkey, that imports of such products from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China (China), Poland, the Republic of Korea (Korea), Spain, Taiwan, Turkey, and Yugoslavia are being sold in the United States at less than fair value (LTFV), and that an industry in the United States is being materially injured and is threatened with further material injury by reason of such imports.

Accordingly, effective February 13, 1991, the Commission instituted the following preliminary countervailing duty and antidumping investigations under sections 703 and 733 of the Tariff Act of 1930 to determine whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise into the United States:

Country	Countervailing duty investigation No.	Antidumping investigation No.
Argentina.....	(1)	731-TA-498 (Preliminary)
Austria.....	(1)	731-TA-499 (Preliminary)
Brazil.....	(1)	731-TA-500 (Preliminary)
Canada.....	(1)	731-TA-501 (Preliminary)
China.....	(1)	731-TA-505 (Preliminary)
Hong Kong.....	(1)	731-TA-502 (Preliminary)
Hungary.....	(1)	731-TA-503 (Preliminary)
Korea.....	(1)	731-TA-507 (Preliminary)
Mexico.....	(1)	731-TA-504 (Preliminary)
Poland.....	(1)	731-TA-506 (Preliminary)
Spain.....	(1)	731-TA-508 (Preliminary)
Taiwan.....	(1)	731-TA-509 (Preliminary)
Turkey.....	701-TA-307 (Preliminary)	731-TA-510 (Preliminary)
Yugoslavia.....	(1)	731-TA-511 (Preliminary)

[1] Not applicable.

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[1] The imported ball bearings covered by these investigations include all ground antifriction bearings, finished or unfinished, that employ balls as the rolling element, whether or not housed or combined, and are provided for in subheadings 6909.19.50, 8482.10.10, 8482.10.50, 8482.80.00, 8482.91.00, 8482.99.10, 8482.99.70, 8483.20.40, 8483.20.80, 8483.30.40, 8483.30.80, 8483.90.20, 8483.90.30, 8483.90.70, and 8708.99.50 of the Harmonized Tariff Schedule of the United States (HTS) (previously reported under items 535.2700, 536.1500, 680.3025, 680.3030, 680.3100, 680.3300, 680.3400, 680.3704, 680.3708, 680.3712, 680.3717, 680.3718, 680.3722, 680.3727, 680.3728, 680.3820, 680.3830, 680.3960, 680.4170, 681.0410, 681.0430, 681.1010, 681.1030, 681.3600, 692.3295, and 692.3390 of the former Tariff Schedules of the United States Annotated (TSUSA)).

The statute directs the Commission to make its preliminary determinations within 45 days after receipt of the petition or, in these investigations, by April 1, 1991. Notice of the institution of these investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of February 22, 1991 (56 F.R. 7398). Commerce published its notices of initiation in the Federal Register of March 11, 1991 (56 F.R. 10237-38).[2] The Commission held a public conference in Washington, DC, on March 6, 1991, at which time all interested parties were allowed to present information and data for consideration by the Commission.[3] The Commission voted on these investigations on March 27, 1991.

Previous and Related Investigations

Antifriction bearings, including ball bearings, have been the subject of numerous Commission investigations, along with investigations by other U.S. government agencies, since the 1970s. Details on these investigations are provided in table 1.

Nature and Extent of the Alleged Subsidies and LTFV Sales

Alleged subsidies

The petitioner alleges that manufacturers or exporters of ball bearings and parts thereof in Turkey receive benefits that constitute subsidies within the meaning of the countervailing duty law. According to the petitioner, because eligibility for such benefits was limited to exporters or to exports of specific products (including ball bearings), such benefits were countervailable as export subsidies.

The petitioner listed the following Turkish Government programs as providing allegedly countervailable benefits:

1. Subvention and Price Stabilization Fund.--a program whereby exporters receive payments of from 4 to 10 percent of the f.o.b. value of their exports, which is repatriated in Turkish liras;

2. Tax Deduction on Export Revenues.--eligible firms may deduct up to 25 percent of their export earnings from taxable income for income tax purposes;

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[2] Copies of the Commission's and Commerce's Federal Register notices are presented in app. A.

[3] A list of the participants in the conference is presented in app. B.

Table 1
Antifriction bearings (including ball bearings): Previous and related investigations, 1973-90

Item	Agency	Investigation number	Date of issue	Report No.	Result
Antifriction bearings	USITC	TEA-I-27	1973	TC 597	Affirmative
Antifriction bearings	USITC	TEA-I-27(s)	1974	TC 649	-
Antifriction bearings	USITC	TEA-F-56	1974	TC 636	-
Tapered roller bearings	USITC	AA1921-142	9/4/74	(1)	Negative
Tapered roller bearings: Japan	USITC	AD-143	1975	USITC 714	AD Order
Spherical roller bearings	USITC	337-TA-179	1/4/84	(1)	(2)
Tapered journal roller bearings:					
Federal Republic of Germany	USITC	731-TA-121	1984	USITC 1359	Negative prelim
Italy	USITC	731-TA-122	1984	USITC 1497	Negative final
Japan	USITC	731-TA-120	1984	USITC 1497	Negative final
U.S. ball and roller bearing industry	USITC	332-211	1986	USITC 1797	Report to Congress
Tapered roller bearings: Hungary, Italy, Japan, China, Romania, & Yugoslavia	USITC	731-TA-341-346	1987	USITC 1983 USITC 1999 USITC 2020	AD Orders
U.S. automotive parts industry	USITC	332-232	1987	USITC 2037	Report to Congress
Antifriction bearings	Defense	(3)	1987	(3)	FAR issued[4]
Antifriction bearings:	Commerce	Sec. 232	1988	54 F.R. 1974	(5)
Antifriction bearings (except tapered roller bearings): Federal Republic of Germany, France, Italy, Japan, Romania, Singapore, Sweden, Thailand, and the United Kingdom	USITC	303-TA-19-20 731-TA-391-399	1989	USITC 2185	AD and CVD Orders[6]

[1] No report issued.
[2] The Commission decided not to review the initial determination finding no violation of Section 337.
[3] Not applicable.
[4] As a result of the Defense study, in January 1989 a FAR (Federal Acquisition Regulation) was issued that restricted procurement of all antifriction bearings for Defense use to domestic sources for a 3- to 5-year period. A FAR concerning ball bearings with an outside diameter of less than 30 millimeters has been in effect since 1971.
[5] This investigation, undertaken by Commerce to assess the effects of imports of antifriction bearings on the national security, resulted in a decision by the President to take no action to adjust imports of such bearings.
[6] Limited to certain antifriction bearings, including ball bearings.

3. Marketing Premium.--firms exporting over $100 million a year receive a premium of 2 percent of the value of their exports;

4. Freight Subsidies.--the Turkish Government pays between $3 per metric ton and $12 per metric ton, depending on destination, for all export shipments;

5. Energy Subsidies.--exporting industries are exempt from the standard surcharge on fuel oil consumption and receive discounts on electricity and coal consumed in export-oriented production;

6. Preferential Export Credits and Insurance.--Turkish exporters received credit at rates below domestic commercial rates; in addition, insurance premiums are lower than would be obtainable from private commercial insurance companies;[4]

7. Stamp Duty Exemption.--export-oriented activities are exempt from the normal stamp duty applicable to most financial transactions;

8. Taxes, Duties, and Charges Exemption.--upon committing to a specified percentage of production for export for 5 consecutive years, a company is exempt from paying taxes, duties, and charges on working capital credits, foreign credits, and long-term domestic investment credits; and

9. Deduction of VAT on Imported Inputs.--exporters are entitled to a double deduction of the value-added tax (VAT) on imported inputs used in manufacturing export goods.

The petitioner provided no estimate of the total ad valorem net subsidy provided to Turkish exporters of ball bearings through receipt of the programs listed above.

Alleged LTFV sales

In order to obtain estimated dumping margins for ball bearings imported from Argentina, Austria, Brazil, Canada, China, Hong Kong, Hungary, Korea, Mexico, Poland, Spain, Taiwan, Turkey, and Yugoslavia, the petitioner compared the United States price of selected ball bearing models with their foreign market value by relying for the most part on specific pricing and cost information (a "micro" approach). In addition, for all countries except Canada and Mexico, the petitioner adopted an alternative, so-called "macro" approach. That approach involved basing United States price on per-pound U.S. import customs values. It also involved basing foreign market value on the per-pound price of ball bearings exported to the country in question by West

[4] Commerce did not initiate on this aspect of the program.

Germany and Japan.[5] Details on the methodologies used by the petitioner in calculating alleged LTFV margins for each country are provided below.

Argentina.--U.S. price (exporter's sales price) was based on the U.S. price list of the Argentine affiliate of ABSKF Sweden (SKF Sweden), after adjusting for duty and c.i.f. charges.[6] Foreign market value was based on the published list price for the identical bearings in Argentina, adjusted for distributor discounts. Calculated margins ranged from 14.56 to 22.44 percent.

Austria.--U.S. price (exporter's sales price) was based on the U.S. distributor price list of SKF Steyr, a major Austrian manufacturer; foreign market value was based on that firm's home market price list. After adjustment to both sides for distributor discounts, the petitioner calculated margins ranging from 11.80 to 42.52 percent.

Brazil.--U.S. price (exporter's sales price) was based on the U.S. price lists of two Brazilian manufacturers exporting through related firms in the United States. These prices were adjusted for c.i.f. and duty charges. Similarly, foreign market value was based on these firms' home market price list, adjusted for distributor discounts, as appropriate. Calculated margins ranged from 2.70 to 41.45 percent.

Canada.--The petitioner based U.S. price on its call reports regarding a major Canadian manufacturer. These prices were adjusted for c.i.f. charges. Because the petitioner believed that home market prices in Canada for the same part numbers were below full cost of production, it based foreign market value on constructed value, using its own production costs adjusted to reflect production costs in Canada. Comparison of these figures produced margins ranging from 7.22 to 22.20 percent.

China/Hong Kong.[7]--U.S. price was based alternatively on petitioner's call reports concerning bearings imported from either China or Hong Kong or on distributor price lists. These prices were then adjusted for duty, c.i.f. charges, and distributor markup. Foreign market value was based on constructed value, with cost factors adjusted for differences between Chinese costs and those prevailing in a surrogate country, India. A comparison of U.S. price to foreign market value yielded margins of 12.95 to 284.62 percent in the case of China, and 79.31 to 222.41 percent in the case of Hong Kong.

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[5] Commerce did not initiate on the basis of this latter approach; consequently, it will not be discussed further in this report.

[6] In general, the petitioner adjusted for these charges based on the difference between f.a.s. and landed cost for the appropriate bearing sizes, based on Commerce import statistics for January through October 1990.

[7] The petitioner asserted that no ball bearings are actually manufactured in Hong Kong; rather, it maintained that Hong Kong serves as a transshipment point for bearings manufactured in China. Accordingly, for purposes of calculating margins, foreign market value was based exclusively on Chinese constructed value, regardless of whether the merchandise was imported from China or Hong Kong.

Hungary.--The petitioner based U.S. price (purchase price) on prices from the price list of a major U.S. distributor of Hungarian ball bearings, adjusted for importer markup and c.i.f. and duty charges. As with China, because the petitioner asserted that Hungary was a nonmarket economy, it based foreign market value on constructed value, with Hungarian costs adjusted for probable production differences in a surrogate market economy country, Portugal. A comparison of U.S. price to foreign market value produced margins of 22.08 to 166.80 percent.

Korea.--U.S. price (purchase price) was based primarily on petitioner's market intelligence reports, adjusted for c.i.f. and duty charges, and distributor markup, as appropriate. Foreign market value was estimated based on the home market price list of Korea Machinery Co. (KMC), a major Korean manufacturer. Home market prices were adjusted for commissions and other discounts. Margins ranged from 7.41 to 149.78 percent.

Mexico.--As with Argentina, the petitioner based U.S. price (exporter's sales price) on the U.S. price list of SKF U.S.A. (SKF), a company related to the largest Mexican manufacturer. These list prices were adjusted for c.i.f., duty charges, and credit expenses. Foreign market value was based on prices from SKF's Mexican price list, adjusted for distributor discounts. Margins ranged from 36.24 to 66.08 percent.

Poland.--U.S. price (purchase price) was based on bearing prices obtained from petitioner's call reports, which were subsequently adjusted for c.i.f. charges and duty. The petitioner asserted that Poland is a state-controlled economy; thus, foreign market value was based on constructed value, using a methodology similar to that used for Hungary, but using Mexico as the surrogate market-economy country. Margins on standard ball bearings ranged from 53.97 to 172.50 percent.

Spain.--As with Argentina and Mexico, the petitioner based U.S. price (exporter's sales price) on prices from SKF's U.S. distributor price list (alternatively from the U.S. price list of SKF's Austrian affiliate), and adjusted such prices for c.i.f. charges, duty charges, and a distributor discount. Similarly, foreign market value was based on SKF's Spanish affiliate's home market price list, with an adjustment for distributor discounts. Margin calculations ranged from 5.90 to 36.04 percent.

Taiwan.--Petitioner's market research produced estimates of U.S. prices, based on purchase price, for both ball bearings and pillow blocks. C.i.f. charges, duty charges, and estimated dealer markup were deducted from these prices. Foreign market value was based on home market prices taken from a home market price list of one of Taiwan's larger bearing manufacturers, adjusted for distributor discount. Dumping margins for these products ranged between 4.76 and 107.55 percent.

Turkey.--U.S. price (purchase price) was based on petitioner's call reports and other market intelligence; prices were then adjusted for c.i.f. and duty charges and distributor markup, as appropriate. Foreign market value was based on home market prices charged by the Turkish manufacturer named in

the petition, adjusted for a standard distributor discount. Estimated margins ranged from 10.20 to 329.70 percent.

Yugoslavia.--The petitioner constructed margin estimates based on a comparison of purchase price with constructed value. Purchase prices were based on a price list issued by a major U.S. distributor of Yugoslav disc harrow bearings (used in the agricultural industry), adjusted for c.i.f. charges, duty charges, and importer markup. Yugoslav constructed value was derived on the basis of petitioner's costs, adjusted to account for alleged production cost differences in Yugoslavia, or alternatively using actual Yugoslav production costs. In this manner, margins of 2.70 to 35.22 percent were obtained.

The following tabulation summarizes the estimated dumping margins for each of the foreign countries subject to these investigations (in percent):

Country	Estimated dumping margins	
	Low	High
Argentina	14.56	22.44
Austria	11.80	42.52
Brazil	2.70	41.45
Canada	7.22	22.20
China	12.95	284.62
Hong Kong	79.31	222.41
Hungary	22.08	166.80
Korea	7.41	149.78
Mexico	36.24	66.08
Poland	53.97	172.50
Spain	5.90	36.04
Taiwan	4.76	107.55
Turkey	10.20	329.70
Yugoslavia	2.70	35.22

The Products

Description

Product description.--Ball bearings, mounted or unmounted, and parts thereof, may be defined as antifriction bearings using balls as rolling elements, with or without integral shafts, ground or unground. Such ball bearings may be thrust, linear, angular contact, or radial bearings. They may be combined with spherical, needle, cylindrical, or other types of roller bearings, or may be incorporated into flange, takeup, cartridge, and hanger units, or other bearing housings. Parts of such bearings, whether or not combined with roller bearings, include, but are not limited to, antifriction balls and inner and outer races. Parts of housings into which such ball bearings may be incorporated, such as flange, take-up, cartridge, and hanger units, are also included. Double-flanged wheel hub units that employ balls as

the rolling element are included, as are ceramic bearings used in laboratory, chemical, or other technical applications.

The products covered in these investigations include all ground antifriction bearings and parts thereof, finished or unfinished, that employ balls as the rolling element, whether or not housed or combined. Imports of these products are classified under the following categories: antifriction balls and other parts of ball bearings, ball bearings with integral shafts, other ball bearings (including radial ball bearings) and parts thereof, and housed or mounted ball bearing units and parts thereof. Wheel hub units which employ balls as the rolling element are included in these investigations. Finished but unground or semiground balls are not included in the scope of these investigations. Unfinished parts (inner race, outer race, balls, etc.) are included in these investigations if they have been heat treated, or heat treatment is not required to be performed on the part. Unfinished parts that will be subject to heat treatment after importation are not included in these investigations.

Physical characteristics.--The function of ball bearings, as for all antifriction bearings, is to reduce friction between moving and fixed parts, thereby enabling easier, faster motion. Ball bearings consist of several major components: an outer ring or outer race, an inner ring or inner race, a series of balls as the rolling element that fit into the openings in a separator or cage, and a separator or cage that maintains the equal distribution of the balls around the races. The inner ring and outer ring rotate with respect to each other, separated by the balls. The balls, in turn, support the load.

Ball bearings are often the bearing of choice when speed, rather than load-carrying capacity, is the overriding factor. Ball bearings can operate under fairly high speeds, as there is comparatively less contact between the rolling balls and the inner and outer rings. Ball bearings are designed to carry radial or thrust loads, or a combination of the two. Radial loads are applied perpendicularly to the shaft axis, whereas thrust loads are applied parallel to this axis. Ball bearings can also be categorized by a number of geometric configurations, including single-row, double-row, self-aligning, and angular contact.[8]

Ball bearings come in a wide variety of sizes, the smallest measuring at under 9 mm outside diameter. Miniature bearings incorporate the same, but smaller, components as larger bearings. The largest ball bearing, known as a

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[8] Commission staff has learned from telephone interviews that water pump bearings are essentially either double-row ball bearings, or double-row ball-roller bearings. These bearings generally undergo the same production process as regular ball bearings, and are comprised of the same components. One industry source has indicated that water pump bearings, although in very small percentages, are used in other applications besides automotive water pumps. Examples of such applications are agricultural planters, buffing machines, and off-the-road equipment.

slewing ring ball bearing, can exceed 14 feet in outside diameter. This type of bearing is used in cranes and oil drilling equipment.

Mounted ball bearing units are flange, cartridge, and takeup units. These assemblies are premounted bearings, consisting of a ball bearing that is set and sealed into a housing, which is then mounted onto a machine frame. Mounted ball bearings allow the movement of a shaft through the housing itself, with flange, take-up, and cartridge units each providing for a different positioning of a shaft within or on a machine frame. A typical application of such units is in the wheel hub system of an automobile.

Wheel hub units are prelubricated, preset, deep-groove ball bearings that have been sealed into a cast or forged flanged housing with bolt holes for direct mounting onto the wheel hub, in which the flanged housing performs as the outer race of the bearing. Ceramic bearings, used for technical applications, can be made with ceramic balls and races, but a hybrid, with ceramic balls and steel races, is also produced.

Comparison of imported and domestic products.--Ball bearings, whether manufactured domestically or imported, are produced to international standards of dimensions and tolerances, or allowable variations in specifications. Likewise, parts are produced under a recognized international parts numbering system. Ball bearings made in the United States are manufactured to conform to standards designated by the Annular Bearing Engineers Committee (ABEC) of the Antifriction Bearing Manufacturers Association, Inc. (AFBMA). These standards are International Standards Organization (ISO) standards, and are generally followed by bearing manufacturers the world over. Tolerance measurements for commercial grade ball bearings are ABEC 1 and 3, ABEC 5 bearings are precision bearings, and superprecision ball bearings are ABEC 7 and 9. These standards were established many years ago, and today, bearings in ABEC 1 through 5 are often considered to be precision. These ratings measure bore tolerance, outside diameter tolerance, width tolerance, and tolerance on the "run out" of the ball bearing. The higher the ABEC rating is, the tighter the tolerance. It should be noted, however, that ABEC ratings relate only to dimensional tolerances; and do not address characteristics such as noise, grinding, superfinish quality, ball quality, steel quality, load rating, and "B10 life".[9] Moreover, bearings within the same ABEC rating are differentiated by how close they come to the upper limit specifications in that ABEC category. There is only one ABEC standard for mounted ball bearings.

U.S. importers reported in their questionnaire responses that the quality of the Chinese, Korean, and Yugoslav ball bearings is generally inferior to that of U.S.-produced ball bearings. Although not reported as frequently, importers also asserted that quality problems were associated with ball bearings imported from Hungary and Poland.[10] Among the importers providing

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[9] Postconference brief of Peer Bearing Company, p. 17.

[10] Conflicting assertions about product quality were made at the conference. Torrington representatives indicated that ball bearings made to a specified

(continued...)

some explanation, *** reported in its questionnaire response that ball bearings from China are made with a low-quality steel and are poorly ground.[11]

***, another U.S. importer, indicated in its questionnaire response that the Chinese ball bearings have poorer tolerances than U.S. bearings, even though both sources of bearings were made to, and satisfy, ABEC 1 standards. *** stated that the U.S. ball bearings qualify as electric motor quality (EMQ), a nonspecific grade regarded as acceptable for electric motor use where lower noise and vibration are necessary. The Chinese ball bearings do not qualify for this use and typically are purchased for less demanding uses such as low-speed gearboxes and trailer axles. *** indicated that its Chinese ball bearings compete with East European ball bearings and Chinese bearings from other suppliers. In addition, *** has sold its Chinese ball bearings to distributors on a fill-in basis when U.S. bearings are not available.

***, another U.S. importer of ball bearings, indicated in its questionnaire response that the ball bearings from China and Yugoslavia are inconsistent in quality and are often contaminated with dust and dirt. This latter firm also reported that ball bearings from Hungary and Poland occasionally are imported with unacceptable variances in the inside and outside diameters.[12] Both *** and *** reported that the lower quality bearings were used in very price-competitive, low-profit, end-use products, and commanded a lower price than higher quality bearings, which are typically used in more profitable end-use products.

Manufacturing process

There are four major steps in the production of bearings: green machining, heat treating, finishing, and assembly and inspection. Special bearing-grade alloy steel in the form of seamless tubing is the raw material utilized in the production of most outer and inner rings. There is a

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[10](...continued)
ABEC rating were fungible in use, whereas counsels for Hungarian, Polish, and Chinese ball bearing interests indicated that the quality of ball bearings made to a given ABEC rating may differ. According to the latter counsels, lower quality bearings typically make more noise and have a shorter life than bearings of higher quality although both sets of bearings are made to the same ABEC rating. As a result, lower quality bearings carry a lower price and are typically used in such equipment as lawnmowers; higher quality bearings are used in electric motors. Transcript, pp. 54, 71-72, 181-85.

[11] Low quality of the steel reportedly leads to lower load ratings and shorter bearing life than U.S.-produced ball bearings. Poor grinding of Chinese ball bearings results in higher noise levels than those associated with U.S.-produced ball bearings.

[12] *** asserted that ball bearings from China, Yugoslavia, Hungary, and Poland were largely sold for uses where bearing load, life, and noise factors were less demanding than uses requiring higher quality bearings. Field visit with ***.

generally accepted minimum industry standard for the steel utilized in bearing production; however, the raw material used by most bearing manufacturers exceeds this standard in quality. Balls, the rolling element in the subject bearing, are either purchased by bearing manufacturers from bearing ball manufacturers, or are produced by the ball bearing manufacturers. Production of the inner and outer rings is estimated to be at least 60 percent of the cost of production. Production of parts, particularly inner and outer rings, is integral in the term "bearing production." If all the parts are acquired elsewhere by a facility, that facility may be characterized as an assembly operation.

Green machining.--Green machining is an industry term that relates to the machining operations performed on the raw materials prior to heat treatment. For outer and inner rings, the steel tubing is machined on single or multiple screw machines. When the desired contour and shape is achieved, the outer or inner ring is sheared off the end of the tube. Green machining the inner ring, however, involves more steps because of the complexity of the design and function of this component. Form tools are used in machining the outside diameter of inner and outer rings; recess tools shape the inside dimensions of both rings. These components are then inspected and electronically gauged to ensure adherence to the prescribed specifications.

Heat treatment.--The bearing components are then heat treated to ensure durability, hardness, and shock resistance. This process is two-phased. First, the green-machined parts are washed to remove oil residue, placed in a hardening furnace, and heated at very high temperatures (about 1,550 degrees Fahrenheit) for an extended period of time. Furnaces for heat treatment can be gas or electric. During the second phase, the components pass through a tempering cycle, in which they are heated at temperatures ranging from 385 to 450 degrees Fahrenheit for several hours. The rings are then placed in a die and quenched in an oil bath to maintain the shape of the rings. After the oil bath, the rings are washed.

Finishing.--The third phase of the production process is hard machining, or finishing. This process consists of either just grinding or grinding and honing, depending on the bearing's intended application. The steps involved in the grinding operation differ for the inner and outer rings, as shown below:

Grinding steps	Inner ring	Outer ring
1st.....	Width grind	Width grind
2nd.....	Inner race grind	Outside diameter grind
3rd.....	Bore grind	Outer race grind

Honing involves polishing the inside diameter of the outer ring and the outside diameter of the inner ring. This process is often performed only on smaller bearings. A honing machine utilizing a very fine grade of sandpaper performs these operations. After honing, the rings are washed.

Cages may be produced from a number of materials, among the more common being cold-rolled strip steel, bronze, plastic, nylon, and silver-plated steel. The material chosen is a function of both cost and application. For example, plastic is used because it is cheaper, does not corrode, performs better in poor lubrication situations, and can withstand more misalignment. Silver-plated steel is more suitable for aerospace applications. In the manufacture of steel cages, the steel is fed into a "cut-and-carry press" that performs the blanking, bottoming, perforating, and winging operations that produce a finished cage. The cut-and-carry press has multiple stations within it, and an integral conveyor that moves the material along through the various processes. Blanking involves forming the strip steel into a dish shape; bottoming involves punching out the bottom of the cage. The cage is then perforated with holes around its diameter. A winging operation removes any sharp corners on the perforations and spreads the large end of the cage for installation of the rolling elements. Cages are then annealed to relieve any stresses. Annealing involves heating a cage to a specific temperature for a specified time and then cooling the cage to increase its hardness. This is followed by shot blasting to remove scale on the cage and to improve the finish.

Plastic cages are chosen when the maximum number of balls possible are required in the ball bearing. Common applications of plastic-caged ball bearings are in transmissions, gear boxes, and steering boxes (especially in rack and pinion steering). Only plastic cages are used in hub units. The production of plastic cages begins with polymer material. This material is melted in a cylinder, and then injected into a mold where it solidifies. When solid, the mold opens and the cage is ejected. The mold then closes and the process is repeated. Nylon cages are produced in the same fashion.

Bearing balls are produced of the same 52/100-grade steel used in ring production, and undergo a similar production process. The raw steel is purchased as rolled wire. This wire is unwound and chopped into what are known as slug lengths. These slugs, or cylinders, are fed one at a time into a header machine. A great deal of heat is required in the header operation, as the shape of the metal is physically altered into a rough round ball. When the ball cools, it has an equator of excess metal around it that is filed off in a filer machine while the ball is still soft. The ball is also sized while it is still soft through a soft grinding process. To harden the ball, a heat treatment similar to that of ring production is employed. The ball is heated at 1,550 degrees Fahrenheit. When sufficiently hardened, the ball passes through a two- or three-step grinding phase, depending on the grade of ball desired. This grinding is performed by spiral plates and a compound. The ball is turned and spun by these spiral plates, and the constant agitation finishes it. Finally, the ball is inspected. Balls are the only part of ball bearings that may have other applications, for example, in some types of valve gauges. Balls for ball bearings are generally between 1/4 and 3/8 inch in diameter, and the use of these balls in other applications accounts for a minimal amount of ball production.

Assembly and inspection.--In the assembly stage, races are measured, and balls are inserted between the rings. The cage is then added, and the subassembly is washed to remove impurities. The bearing is etch-marked,

sprayed to remove electrolytic solution residue, and treated with an anti-rust solution. If the bearing is to be an open bearing, it is complete at this point. If it is to be a greased bearing, it is greased and fitted with a shield and/or a seal. A seal is usually made of felt, rubber, or metal and rubber, and works to keep contaminants out and grease in. Shields are made of metal, and are only able to keep contaminants out. Bearings may have one of each, or exclusively one or the other. The bearing is then inspected, packed, boxed, and moved to the shipping area.

Certain bearing components, such as inner and outer rings, may be green machined only or green machined and heat treated, and then sent to another bearing producer to be finished. U.S. producers sometimes purchase these unfinished components from foreign manufacturers and then finish and assemble them here.

Machinery and equipment.--Bearing production involves a high degree of mechanization due, in large part, to the specific tolerances required of the products. Computer-aided manufacturing, microprocessors, laser-gauging equipment, and highly automated materials-handling equipment are common to the production of bearings. Employee participation in the production process is indirect; employees are primarily machine operators and quality control inspectors. There is a high degree of gauging and inspection, as all components are tested several times throughout the production process.

Manufacturing facilities.--Many companies rationalize their production by size, precision, and/or type of rolling element, as it is impractical in terms of cost and time to manufacture a wide range of types/sizes of bearings in one facility. Ball bearings of different sizes, however, may be manufactured on the same production lines within a certain, limited range. Apart from diameter width, ball bearings also vary according to the precision of their dimensions and the load tolerances they can hold. As a general rule, production processes are more automated for high-volume, multipurpose bearings than for low-volume, limited-application bearings.[13] The process of manufacturing superprecision bearings (ABEC 7 and 9) requires "white room technology" to control the environment, because even variations of one degree in temperature may cause metal to shrink or expand. Manufacturing superprecision bearings requires grinding to extremely tight tolerances (allowable variations in specifications), measured in hundreds of thousandths of an inch. The total manufacturing time for these superprecision bearings can run over a year. Some U.S. producers have specialized exclusively in the manufacture of superprecision bearings, having left the commercial market.[14]

Technology employed in the production of ball bearings has changed little over the last 20 years. New developments, however, involving a higher degree

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[13] Petition, p. 52.

[14] USITC, 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, USITC publication 2185, May 1989, p. A-18.

of automation and innovative computer applications, are currently being introduced both in the United States and abroad.

Applications

Ball bearings are chosen when high-speed, light-load capabilities, and ability to carry radial and thrust loads are essential. Ball bearing applications include use in the automotive, transportation, engines, agricultural, mining, construction, oil, and general industrial equipment industries. Superprecision ball bearings (ABEC 7 and 9) are used extensively in the aerospace, machine tool, and computer industries.[15]

In the domestic industry, sales to original equipment manufacturers (OEMs) account for anywhere between 50 and 70 percent of production; the remainder is sold to distributors for sale to individual consumers. This ratio varies among U.S. establishments, but distributors generally do not account for more than 50 percent of the production of a facility.[16] In terms of units, it is estimated that standard, off-the-shelf bearings account for 80 percent of the domestic industry's production, the remainder being allotted to specialty, custom-made bearings. This ratio, in terms of dollars, is closer to 70:30, as specialty bearings are more expensive.[17]

Interchangeability

Antifriction bearings in general have specific respective characteristics associated with them, and are, in most cases, not functionally interchangeable. The selection of a particular ball bearing in the design phase is a function of load, life, and speed requirements imposed by the end-use application. These three requirements are factored together to arrive at the general size range required, and the selection is then made on the basis of cost and functional factors. For example, a ball bearing with a thicker cross-section is able to carry a larger load.

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[15] The Commission staff has learned from conversations with independent industry experts that ball bearings used in aerospace applications are generally produced on a different production line from other superprecision ball bearings, although the same equipment is used. According to this source, ball bearings for particular aerospace applications, such as engines, are made from a higher quality steel, known as M50 steel, which has a higher temperature resistance. Ball bearings of M50 steel, however, are employed in other applications besides aerospace. Superprecision ball bearings of standard 52/100 steel are common to both non-aerospace ball bearings of all precision ratings, as well as less critical aerospace applications, such as gear boxes and fans. This source also indicated that the grinding tolerances for all superprecision ball bearings, including ball bearings for the aerospace industry, are very tight and vary little with the application intended.

[16] Conversation with ***.

[17] Conversation with ***.

There is a degree of interchangeability, however, among antifriction bearings at the initial design phase of the end product. Engineers calculate the dynamic or static capacity of a bearing with an NLD ratio (i.e., number, length, and diameter of rolling elements), which is then cross-checked against load and speed factors. The same solution can be provided by different types of bearings having the same dynamic capacity. Examples of interchangeability include substitution between deep-groove ball bearing and tapered roller bearing wheel hub units, as both are capable of radial, axial, or combined loads.[18]

***, a U.S. producer, and Torrington indicated in their questionnaire responses and at the conference, respectively, that prices of different bearings were also a factor in choosing which type of bearing to use when more than one type is compatible with a given set of performance requirements.[19] Questionnaire responses of U.S. producers and importers indicate that such substitution is rare. An importer of ball bearings, ***, and *** reported in their questionnaire responses that performance characteristics, such as speed and load requirements, typically dictate the type, size, and design of bearing used.

U.S. tariff treatment

Ball bearings, mounted or unmounted, and parts thereof, currently provided for in chapter 84 of the Harmonized Tariff Schedule of the United States (HTS), were previously classified in schedule 6 of the former Tariff Schedules of the United States (TSUS) (table 2):[20]

The U.S. Market

Apparent U.S. consumption

This report presents data concerning apparent U.S. consumption of ball bearings and parts thereof, as compiled from a combination of responses to Commission questionnaires and from official Commerce statistics. The value of reported U.S. shipments of ball bearings and parts accounts for 68 percent of 1989 U.S. shipments of these products, as estimated by the U.S. Census Bureau. As most major producers of complete ball bearings provided usable data in response to Commission questionnaires, data presented here on U.S. shipments

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[18] 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, USITC Publication 2185, May 1989, at A-13.

[19] Transcript, p. 63. Substitution appears limited between ball bearings and other types of bearings such as roller bearings or between ball bearings and other antifriction products such as bushings. *** indicated to Commission staff that some substitution occurs at the equipment-design stage and amounts to less than 10 percent of annual ball bearing sales. Field visit with ***.

[20] This change was effective Jan. 1, 1989.

Table 2
Ball bearings, mounted or unmounted, and parts thereof: HTS subheadings, 1991 most-favored-nation (MFN), preferential, and column 2 tariff rates

Subheadings and statistical reporting numbers	Description	Rates of duty Col. 1	Special	Col. 2
		(Percent ad valorem)		
8482	Ball or roller bearings, and parts thereof:			
8482.10.10	Ball bearings with integral shafts	4.2	Free (B,E,IL)	35
8482.10.1040	Ball bearings, outside diameter not over 30mm		2.9 (CA)[1]	
8482.10.1080	Other			
8482.10.50	Ball bearings other than those with integral shafts	11	Free (B,E)	67
8482.10.5004	Unground bearings		3.3 (IL)	
8482.10.5008	Thrust bearings		7.7 (CA)[1]	
8482.10.5012	Linear bearings			
	Angular contact bearings:			
8482.10.5016	Flanged wheel hub bearings units			
8482.10.5024	Other wheel hub bearings units			
8482.10.5028	Other angular contact bearings			
	Radial bearings:			
	Single row bearings:			
8482.10.5032	Maximum or full capacity type			
	Other bearings with outside diameter of:			
8482.10.5036	Under 9 mm			
8482.10.5044	9 mm and over, not over 30 mm			
8482.10.5048	Over 30 mm, not over 52 mm			
8482.10.5052	Over 52 mm, not over 100 mm			
8482.10.5056	Over 100 mm			
8482.10.5060	Double row ball bearings			
8482.10.5064	Other than single or double row ball bearings			
8482.10.5068	Other			
8482.80.00	Other bearings, including combined ball/roller bearings	6.5	Free (B,E,IL) 4.5 (CA)	67
8482.80.0020	Combined ball and spherical roller bearings			
8482.80.0040	Combined ball and needle roller bearings			
8482.80.0060	Combined ball and other cylindrical roller bearings			
8482.80.0080	Other			
8482.91.00	Parts: balls, needles, and rollers	4.9	Free (B,E,IL)	45
8482.91.0010	Balls of alloy steel		3.4 (CA)	
8482.91.0020	Balls of other material			
8482.99.10	Other parts of ball bearings (including parts of ball bearings with integral shafts)	11	Free (B,E) 3.3 (IL) 7.7 (CA)	67
8482.99.1010	Inner and outer races			
8482.99.1050	Other			
8482.99.70	Parts of other roller bearings or combined ball/roller bearings	6.5	Free (B,E,IL) 4.5 (CA)	67
8482.99.7090	Other (than for needle and other cylindrical roller bearings			

Table continued on following page.
Footnotes presented on following page.

Table 2--Continued
Ball bearings, mounted or unmounted, and parts thereof: HTS subheadings, 1991 most-favored-nation (MFN), preferential, and column 2 tariff rates

Subheadings and statistical reporting numbers	Description	Rates of duty Col. 1	Special	Col. 2
			(Percent ad valorem)	
8483.20	Housed bearings, incorporating ball or roller bearings:			
8483.20.40	Flange, take-up, cartridge and hanger units	5.7	Free (A,E,IL)[2]	45
8483.20.4040	Incorporating ball bearings		2.2 (CA)	
8483.20.80	Other housed bearings incorporating ball or roller bearings	5.7	Free (E,IL)[2] 2.2 (CA)	45
8483.20.8040	Incorporating ball bearings			
8483.30	Bearing housings; plain shaft bearings:			
8483.30.40	Flange, take-up, cartridge and hanger units	5.7	Free (A,C,CA, E,IL)[2]	45
8483.30.4040	Ball or roller bearing type			
8483.30.80	Other bearing housings; plain shaft bearings	5.7	Free (C,CA,E, IL)[2]	45
8483.30.8020	Ball or roller bearing type			
	Parts of bearing housings and plain shaft bearings:			
8483.90.2000	Parts of flange, takeup, cartridge and hanger units	5.7	Free (A,C,CA, E,IL)[2]	45
8483.90.3000	Other parts of bearing housings and plain shaft bearings	5.7	Free (C,CA,E, IL)[2]	45
8483.90.7000	Parts of articles of subheading 8483.20	5.7	Free (E,IL)[2] 2.2 (CA)	45
8708.99.50	Other parts and accessories of the motor vehicles of headings 8701 to 8705	3.1	Free (A*,B,E, IL) 2.1 (CA)[1]	25
8708.99.5020	Double flanged wheel hub units incorporating ball bearings			
6909.19.50	Other ceramic wares for laboratory, chemical or other technical uses	8	Free (A,E,IL) 5.6 (CA)	45
6909.19.5010	Ceramic bearings			

[1] Equipment, originating in the territory of Canada, intended for use in the repair or maintenance of certain motor vehicles subject to accelerated staged rate reductions.
[2] Duty-free treatment under the Automotive Products Trade Act (shown by "Free (B)") temporarily provided for motor parts.

Source: Harmonized Tariff Schedule of the United States, (1991), (USITC Publication 2333).

of such merchandise, and on shipments of ball bearing parts and components, are based on those responses to Commission questionnaires. Data reported by U.S. importers of the subject merchandise in response to importers' questionnaires also make up 68 percent, by value, of 1988-90 official import statistics for the HTS and TSUS items, as applicable, under which ball bearings and parts thereof are provided for. As a result of these similar response rates, import data used to estimate apparent consumption are also based on responses to Commission questionnaires.[21]

Apparent U.S. consumption of ball bearings and parts increased gradually from 1988 to 1990, first rising substantially between 1988 and 1989, then more slightly, by just 3 percent, between 1989 and 1990 (table 3). Imports rose at a faster rate than overall consumption, but decreased in 1990; the value of U.S. producers' U.S. shipments increased markedly during the period of investigation. Subject imports more than doubled between 1988 and 1989 and then increased further in 1990; imports not subject to investigation also increased in 1989 but fell back in 1990.[22] U.S. producers' share of an expanding market decreased slightly overall, whereas importers' share increased. The share of subject imports in apparent consumption rose from 2.8 percent in 1988 to 5.5 percent in 1990, while the share of nonsubject imports dropped a percentage point.

Parties characterized the demand for bearings as a derived demand.[23] Thus, consumption of bearings is driven by the consumption of products that incorporate bearings. The range of end-use applications for ball bearings is apparently wide enough so as to make trends in the consumption of bearings similar to the trend in overall economic activity. Parties in opposition to the petition alleged that the small decline in apparent consumption during the period of investigation evident from examination of public data sources anticipated or reflected the current recession.[24]

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[21] Consumption estimates are understated because not all producers and importers responded to the Commission's questionnaire.

Estimates of apparent consumption of complete ball bearings, based on questionnaire data, are presented in app. C. Trade and employment data on complete ball bearings, and of ball bearings and parts, based on publicly available data, are provided in app. D.

[22] Nonsubject imports include, primarily, those subject to the 1988-89 antifriction bearings investigations.

[23] See, e.g., transcript, p. 18.

[24] Transcript, p. 105. Parties tended to characterize the current economic downturn as short-lived, and thus expected bearing consumption to increase in 1991, and throughout the 1990s.

Table 3
Ball bearings and parts thereof: U.S. producers' shipments, U.S. shipments of imports, and apparent consumption, 1988-90

Item	1988	1989	1990
	Value (1,000 dollars)		
U.S. producers' shipments....	1,223,436	1,321,529	1,390,925
U.S. shipments of--			
Subject imports.....	46,130	102,381	105,939
Nonsubject imports.....	388,647	452,125	433,176
Subtotal.....	434,777	554,506	539,115
Apparent consumption.....	1,658,213	1,876,035	1,930,040
	As a share of the value of apparent U.S. consumption (percent)		
U.S. producers' shipments....	73.8	70.4	72.1
U.S. shipments of--			
Subject imports.....	2.8	5.5	5.5
Nonsubject imports.....	23.4	24.1	22.4
Subtotal.....	26.2	29.6	27.9
Apparent consumption.....	100.0	100.0	100.0

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

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

The market for ball bearings is a global one. It is dominated by several multinational companies, among them SKF Sweden, FAG Kugelfischer Georg Schaefer KGaA of Germany (FAG), NTN Toyo Bearing (NTN), Nippon Seiko, Ltd. (NSK), and Koyo Seiko, Ltd. (Koyo) of Japan, and the petitioner, Torrington. These companies have established production facilities worldwide and have, to an extent, rationalized their production to meet the needs of each host-country market. These companies have also standardized their production technologies worldwide so that the quality of the bearings sourced in their offshore facilities approximates the quality of their domestically-produced bearings.[25] In addition to the activities of the multinationals, since World War II several Eastern European countries have developed ball bearing industries.[26] According to parties to the proceeding, the trend in worldwide consumption of bearings has tended, in recent years, to mirror the trend in U.S. consumption.[27]

[25] Transcript, p. 121.
[26] Technology in these countries is somewhat less up-to-date, which is reflected in the range of bearing types exported by these countries.
[27] Field visit with ***.

U.S. producers

According to the petition, there are over 50 domestic manufacturers of ball bearings and/or parts thereof.[28] Some of these firms, however, are known, based on the record of the 1988-89 investigations on antifriction bearings, to limit their production to roller bearings and other types of antifriction bearings. Therefore, based on petitioner's list, combined with the list of firms from the 1988-89 investigations known to produce ball bearings and/or parts thereof, the Commission sent 51 questionnaires to firms known to produce, or believed to be producing, such products.

Of the 51 questionnaire recipients, 35 provided timely responses. Three firms reported that they did not produce or sell ball bearings and/or parts thereof during the period of investigation. Thirty-two firms provided information, 25 of which provided data in usable form.[29] Of firms providing adequate responses, 12 stated support for the petition, 8 took no position, and 5 stated opposition.[30] Twenty-four of the 25 companies providing usable data reported production and/or shipments of complete ball bearings, and 7 producers reported production and/or shipments of parts and components of ball bearings.[31]

Generally, ball bearing producers tend to locate their manufacturing facilities in the South and Midwest regions of the United States. In particular, foreign-owned facilities tend to be located in these regions. Firms responding to the Commission's producer questionnaire can be classified into two categories: (1) "ground-up" producers, who engage in all steps of ball bearing production from green machining of steel tubes through final

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[28] The petition classified several of these producers, because of their foreign ownership, as mere assemblers of ball bearings rather than "ground-up" producers. As seen below, however, a substantial majority of these firms indicated that they were established, "ground-up" ball bearing producers.

[29] This was a greater number of producers than responded to the Commission's questionnaire in the 1988-89 final investigations. Of the 16 producers failing to respond to the questionnaire, only one is believed to be a significant producer of ball bearings: ***. This producer reported data in response to the Commission's questionnaires in the 1988-89 investigations.

Of firms submitting usable questionnaire responses, nine are owned by foreign firms. Six of these firms had sister production facilities in the countries subject to investigation.

[30] All five producers in opposition to the petition were foreign-owned. Two foreign-owned firms took no position, and two (***) indicated support.

Firms in support of the petition accounted for 44 percent of the value of U.S. shipments of the subject merchandise in 1990. Firms opposed to the petition accounted for 22 percent, and those taking no position for 34 percent.

[31] Of these firms, only two producers reported shipments of ball bearing parts which were not intended for internal consumption in production of complete ball bearings. Further, only one producer reported shipments of ceramic bearings; ***. ***. Therefore, the Commission knows of no current domestic production of ceramic bearings.

assembly (but who may not produce balls, cages, or retainers in-house); and (2) assemblers, who, typically, perform final grinding and assembly functions but who source-machined and heat-treated rings externally. Except for five firms, two of which produced specialty mounted or ceramic bearings, all responding producers, including a majority of the foreign-owned producers, reported that their facilities could be described as integrated, "ground-up" production establishments.

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

Producer	Parent Company	Percent ownership
* *	* * *	* *

Several producers also reported significant foreign facilities producing ball bearings. Those firms, the location of their foreign plants, and their ownership shares therein, are listed in the following tabulation:

Producer	Foreign plant (location)	Ownership share
* *	* * *	* *

The petitioner in these investigations, the Torrington Co., Torrington, CT, is *** U.S. producer of ball bearings and parts thereof, with a ***-percent share, by value, of U.S. shipments in 1990.[32] A 100-percent owned subsidiary of the Ingersoll-Rand Co., Torrington produces ball bearings in five U.S. facilities: ***. Torrington entered the ball bearing business in 1985, when it purchased Fafnir Bearing, formerly a division of Textron, Inc., which was, at the time, the largest domestic producer of ball bearings.[33] Torrington currently produces the entire range of antifriction bearings, except for tapered roller bearings; in addition to ball bearings, it manufactures needle, cylindrical, and spherical roller bearings, along with spherical plain bearings. Although the relative share of ball bearings in Torrington's antifriction bearings operations is not known, on the basis of data from the 1988-89 investigations Torrington ***. Torrington's production of ball bearings ***.[34] Although it ***, Torrington has not ***.

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[32] Based on reported 1990 domestic shipments. Strictly speaking, the largest domestic producer of ball bearings and parts is ***. This company, however, ***.

[33] Conversation with ***.

[34] ***.

SKF Bearing Industries, Inc. (SKF), King of Prussia, PA, a subsidiary of the Swedish multinational firm ABSKF, Goteborg, Sweden, is *** producer of ball bearings in the United States, accounting for a ***-percent share, by value, of reported 1990 U.S. shipments. SKF currently has ball bearing production facilities in ***, employing a total of *** workers in 1990, with additional facilities producing other types of antifriction bearings at ***.[35] In addition to its U.S. facilities, SKF has foreign facilities producing ball bearings in Argentina, Austria, Brazil, France, Germany, India, Italy, Mexico, South Africa, Spain, Sweden, and the United Kingdom.

As in the previous antifriction bearings investigations, the time period covered by these investigations witnessed several notable changes in operations regarding ball bearing production, as summarized in the tabulation below.

Date	Firm	Event
*	*	*
*	*	*
*	*	*

U.S. importers

According to data provided to the Commission by the U.S. Customs Service, more than 500 firms imported ball bearings and/or parts thereof under the HTS and TSUS items reserved for such merchandise during the period of investigation. From this group, the Commission staff selected 105 firms that made significant imports under these tariff items, and sent questionnaires to those firms.[36] The Commission received usable data from 39 firms. Seventeen additional firms responded that they did not import products subject to the investigations during the period covered.[37] Thirty-eight firms reported imports of complete ball bearings, and 8 firms reported imports of parts and components of those bearings. Companies responding to the Commission's questionnaire accounted for 60 percent, by value, of cumulated 1990 imports of ball bearings and parts thereof from the 14 subject countries, based on official Commerce data.

Importers of ball bearings and parts thereof can be classified into two categories: (1) "resellers", who buy the bearings from foreign producers and then resell them; and (2) "end users", who use the bearings in production of downstream products, such as motorcycles, automobiles, and farm machinery. Of

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[35] ***.

[36] The staff considered imports to be significant if they exceeded $100,000 in any calendar year during the period of investigation.

[37] Thus, 49 firms either did not respond to the questionnaire, or, as in the case of 12 firms, provided inadequate data. Few of these firms, however, are believed to be major importers of the subject products from the subject countries.

the 39 importers providing usable data to the Commission, 8 were OEM end users, and the remainder were primarily resellers.[38]

In its petition and at the conference, Torrington stated that imports of ball bearings in general, and from the 14 subject countries in particular, are evenly distributed throughout the United States, and enter in significant quantities through all major ports.[39] Although the staff did not collect data on this point, parties did not dispute this allegation. Moreover, the following tabulation shows the number of responding importers reporting imports from each of the subject countries:

Source	Number of importers reporting
Argentina	1
Austria	7
Brazil	5
Canada	7
China	10
Hong Kong	4
Hungary	3
Korea	4
Mexico	5
Poland	1
Spain	2
Taiwan	8
Turkey	5
Yugoslavia	3
Other countries	22

In its petition, Torrington also alleged that many of the ball bearings entering the United States are imported into foreign trade zones or bonded warehouses. Based on responses to the Commission's importer questionnaire, 8 firms reported use of foreign trade zones during the period of investigation, and 10 firms, primarily but not exclusively OEM end users, reported entering imports into bonded warehouses.

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

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[38] The eight firms reporting imports of bearings for internal consumption were ***.

Certain resellers reported performing some manipulation (e.g., cleaning, regreasing) of the imported bearings before resale.

[39] Transcript, p. 22.

Importer	Related company	Percent ownership
*	*	*
*	*	*
*	*	*
*	*	*
*	*	*

In contrast to U.S. producers, U.S. importers reported few corporate restructurings during the period of investigation. ***. ***.

Consideration of Alleged Material Injury to an Industry in the United States

For the most part, the information in this section of the report is based on data received from responses to Commission questionnaires. With regard to U.S. production of ball bearings and/or parts thereof, the Commission originally sent questionnaires to 51 firms that it had a reason to believe may have produced ball bearings, or parts of ball bearings, during the period of investigation.[40] Of these firms, three responded that they did not manufacture such products. The Commission received usable responses from 25 producers of ball bearings and/or parts thereof, accounting for 74 percent, by quantity, of U.S. shipments of finished (complete) ball bearings in 1989, and for 68 percent, by value, of 1989 U.S. shipments of ball bearings and parts thereof.[41] Accordingly, 23 firms either did not respond to the questionnaire or provided data that were not usable. Nonresponding firms suspected of being significant producers of ball bearings include ***. Major producers of ball bearing components, such as steel balls, failing to respond to the questionnaire include ***.

Available public data are also presented in this report regarding U.S. shipments and employment levels. As mentioned earlier, such data are presented in appendix D.

U.S. production, capacity, and capacity utilization

Complete ball bearings.--Reported U.S. capacity to produce complete ball bearings first increased slightly, from approximately 257 million bearings in 1988 to nearly 266 million bearings in 1989, then increased more markedly, to a level of 333 million bearings, in 1990 (table 4). The trend in complete ball bearing production demonstrated a similar trend; yet the increase in

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[40] Of producers reporting data on ball bearing production, seven reported data on production of parts used in such production. Only two producers, however, reported data on production of parts for independent sale. Throughout this section of the report, unless otherwise indicated, data on capacity, production, shipments, and inventories of parts and components used in the production of ball bearings are limited to those parts intended for such sale.

[41] Based on U.S. Census Bureau, Current Industrial Reports: Antifriction Bearings 1989: September 1990, excluding data on shipments of unground bearings, which are not subject to these investigations.

Table 4
Ball bearings and parts thereof: U.S. producers' end-of-period capacity, production, and capacity utilization, by products, 1988-90

Item	1988	1989	1990
	Quantity (1,000 units)		
Capacity:			
Complete ball bearings...	256,564	265,683	333,082
Parts and components[1]....	***	***	***
Production:			
Complete ball bearings...	201,455	212,981	238,858
Parts and components[1]....	***	***	***
	Percent		
Capacity utilization:[2]			
Complete ball bearings...	78.5	80.2	71.7
Parts and components.....	66.7	60.7	53.2

[1] Includes parts internally consumed in ball bearing production.
[2] Calculated from data from firms reporting both capacity and production.

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

production between 1989 and 1990 lagged the increase in capacity. As a result, capacity utilization of facilities producing complete ball bearings fell from 80 percent in 1989 to 72 percent in 1990.

Ball bearing parts and components.--Capacity to produce parts and components for ball bearings (measured in terms of units regardless of the part in question) increased in tandem with capacity to produce complete bearings, although the trend was less dramatic. Production of parts, unlike that of complete bearings, actually demonstrated an overall decline over the 3-year period. Capacity utilization fell sharply, from 67 percent in 1988 to 53 percent in 1990.

It is not possible, nor theoretically useful, to calculate capacity and production for the combined category of ball bearings and parts. First, firms were not requested to separate data on internally consumed parts when reporting production and capacity for ball bearing parts and components. Thus, any summation of the quantity-based data would constitute double-counting. At any rate, as production of bearings essentially constitutes production of parts that are subsequently assembled into completed bearings, data on production and capacity for complete bearings can serve as a proxy for data on bearings and parts viewed together.

Capacity data were reported on bases ranging from 40 hours per week, 50 weeks per year, to 118 hours per week, 52 weeks per year. Most producers indicated multishift operation; foreign-owned facilities were exclusively

multishift, whereas many of the U.S.-owned firms worked only one shift. Two producers, ***, reported production under toll agreements; because of the small size of their production, pertinent data are not presented separately.[42] Parties agreed that there is a slight element of seasonality in ball bearing production, influenced by the demands of the agricultural and automotive industries; as a result, production sags slightly during the summer months.[43]

Producers reporting data to the Commission reported differing average sizes of production runs of ball bearings. Torrington reported that its average production run size is ***, whereas SKF, the *** domestic producer, indicated its average production run at approximately *** pieces; Torrington alleged that for most domestic producers, the average has declined in recent years, leading to a loss in manufacturing efficiency.[44] According to Torrington, there have been no major technological advances in ball bearing production in the last decade, except perhaps for refinements in the grinding process.[45] In terms of the green machining stage, screw machine technology is basically standard worldwide, and has not advanced significantly in the last 10 or 15 years.[46] Most larger producers have in recent years introduced computer-aided manufacturing (CAM), particularly with regard to the grinding processes, in order to attain greater tolerances.

The majority of producers responding to the Commission's questionnaire indicated that their production processes are rationalized so that ball bearings are run on dedicated production lines. Only 7 of the 25 producers responding indicated that other products, such as cylindrical and spherical roller bearings, are manufactured on equipment used in ball bearing production, and only two producers indicated that the changeover involved between ball and roller bearing production was relatively minimal in scope.[47] Moreover, producers of mounted bearings reported that production of such bearings is identical to unmounted bearing production up to and including the heat treatment process; grinding and assembly are then done separately.

Capacity data were affected by several notable developments during the period of investigation. ***. In addition, ***. Finally, in 1989 ***.[48]

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[42] ***.

[43] Transcript, p. 67.

[44] Field visit with ***; transcript, p. 64.

[45] Transcript, p. 92. Torrington claimed that the grinding techniques used by the major worldwide bearing manufacturers are essentially similar. Torrington, however, indicated that in connection with its restructuring subsequent to the 1989 antidumping orders, it has introduced new production strategies. Transcript, p. 69; petitioner's postconference brief, pp. 57-88.

[46] Field visit with ***.

[47] SKF noted that ***. Torrington reported that ***. A third producer, ***. Also see transcript, p. 130; counsel for FAG Bearing Corp. indicated that for aerospace bearings, rededicating production lines could take up to 5 years.

[48] ***. Respondents generally alleged that during the period 1987-90, capacity to produce ball bearings increased steadily. See, e.g., SKF's postconference brief, p. 22.

The Commission staff verified two plant closings during the period of investigation; in ***, closed its doors. According to ***, the company's plant and equipment were liquidated at that time.[49] In addition, in ***.[50]

U.S. producers' company transfers, domestic shipments, and export shipments

Twenty-four producers reported data on their company transfers, domestic shipments, and export shipments of complete ball bearings (table 5), while seven producers reported data on the quantity and value of such shipments of parts and components of ball bearings. Only 2 producers, however, reported data on shipments of ball bearing parts and components not intended for internal consumption in ball bearing production. In order to avoid double counting in the measurement of the value of completed bearings and parts, shipments of parts intended for consumption in the production of ball bearings are not presented in the table.[51]

Complete ball bearings.--As seen from the table, the quantity of U.S. shipments of complete ball bearings increased by 3 percent from 1988 to 1989, and then more strongly, by 9 percent, from 1989 to 1990. In terms of value, such shipments also increased consistently from 1988 to 1990. Unit values decreased between 1989 and 1990. Volumes of export shipments, which varied between 5 and 6 percent of U.S. shipments throughout the period, showed no particular trend, although the value of such shipments did increase overall. Unit values of those shipments increased throughout the period.

Fifteen producers reported export shipments of complete ball bearings. For these producers, the most common export markets included Canada and Europe, with fewer shipments being reported to Asian and Latin American markets.[52] Exports constituted approximately 10 percent of the value of total U.S. producer shipments of complete ball bearings throughout the period of investigation.

Ball bearing parts and components.--Of the 7 producers reporting shipments of ball bearing parts and components, most reported that such

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[49] Conversation with ***.

[50] Field visit with ***. ***.

[51] Remaining shipments, for example, may be destined for use as replacement parts, or, as in the case of steel balls, may have other uses such as in pinball machines, ballpoint pens, etc. It is not known, however, whether such shipments were simply resold to other producers for use in their bearing production facilities.

Data on shipments of ball bearing parts and components, including parts and components destined for internal consumption in ball bearing production, are presented in app. E.

[52] *** was the only major bearing producer to serve the Latin American market, for example. Except for limited shipments to Taiwan, no producer reported shipments to East Asian markets.

Table 5
Ball bearings and parts thereof: Shipments of U.S. producers, by products and types, 1988-90

Item	1988	1989	1990
	Quantity (1,000 units)		
Complete ball bearings:			
Company transfers	76,254	75,482	86,013
Domestic shipments	116,382	122,469	129,325
U.S. shipments	192,636	197,951	215,338
Export shipments	11,312	11,145	11,258
Total shipments	203,948	209,096	226,596
Parts and components:[1]			
Company transfers	***	***	***
Domestic shipments	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	***	***	***
	Value (1,000 dollars)		
Complete ball bearings:			
Company transfers	***	***	***
Domestic shipments	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	***	***	***
Parts and components:[1]			
Company transfers	***	***	***
Domestic shipments	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	***	***	***
Ball bearings and parts:[1]			
Company transfers	***	366,864	408,977
Domestic shipments	***	954,665	981,948
U.S. shipments	1,223,436	1,321,529	1,390,925
Export shipments	129,677	147,696	162,909
Total shipments	1,353,113	1,469,225	1,552,019
	Unit value		
Complete ball bearings:			
Company transfers	$***	$***	$***
Domestic shipments	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Average	***	***	***
Parts and components:			
Company transfers	(2)	(2)	(2)
Domestic shipments	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Average	***	***	***

[1] Exclusive of shipments for consumption in ball bearing production.
[2] Not applicable.

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

shipments constituted export shipments.[53] The value of total shipments of ball bearing parts and components increased by 11 percent from 1989 to 1990. Unit values of such shipments were extremely low, reflecting the small part size and varied nature of this category.

Ball bearings and parts.--The value of U.S. shipments of ball bearings and parts thereof followed a pattern similar to that of the value of U.S. shipments of complete bearings; i.e., first increasing by 8 percent from 1988 to 1989, and then by over 5 percent from 1989 to 1990. Because of the variety in product mix, unit values were not calculated for this category.

Producers were requested to indicate the relative concentration of their U.S. shipments, with respect to size and tolerance, by classifying such shipments into four categories: ABEC 1 to 3, less than 52 mm outside diameter; ABEC 1 to 3, 52 mm outside diameter and over; ABEC 5 and up, less than 52 mm outside diameter; and ABEC 5 and up, 52 mm outside diameter and over. With regard to ABEC ratings (i.e., degree of tolerance), 17 of the 21 producers providing usable data indicated that the preponderance of their shipments were ABEC 1 or 3; thus only 4 producers reported shipments of "precision" (ABEC 5), or "superprecision" (ABEC 7 and up) bearings. With respect to size, producers were fairly evenly divided between specialization in smaller size bearings, i.e., 52 mm outside diameter and less, and those bearings with outside diameters in excess of 52 mm.[54]

U.S. producers' imports

Out of 25 producers providing data on domestic production of ball bearings and/or parts thereof, 9 reported data on imports of such merchandise (table 6). Although the majority of these firms reported imports from the 14 countries subject to investigation during the period covered, most imported far larger quantities from Japan, or from European sources not included in these investigations. Total imports of complete ball bearings by U.S. producers equalled 60 percent, by quantity, of those firms' production of such merchandise during 1990.[55] The value of imports of complete ball bearings and parts of such bearings by these producers comprised 40 percent, by value, of their 1990 U.S. shipments of such products.

The value of imports of ball bearings and parts thereof from the 14 subject countries by U.S. producers first increased sharply, more than doubling between 1988 and 1989, then fell back, by 15 percent, in 1990. The value of imports of such products from other countries increased slightly in 1989, then declined markedly in 1990. In terms of both quantity and value,

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[53] In this particular instance, ball bearing parts were being produced domestically and then shipped overseas for final assembly. The vast majority of these shipments were reported by ***.

[54] Importers were also requested to provide these data. See the section of this report entitled "U.S. imports" for a discussion of their responses.

[55] The ratio of these firms' imports of complete ball bearings from the subject countries to their production is shown in app. F.

Table 6
Ball bearings and parts thereof: Imports by U.S. producers, by products and sources, 1988-90

Item	1988	1989	1990
	Quantity (1,000 units)		
Complete ball bearings:			
Subject sources[1]	***	***	***
Other sources[2]	***	***	***
Total	156,696	138,407	104,332
Parts and components:			
Subject sources[1]	***	***	***
Other sources[2]	***	***	***
Total	***	294,035	344,436
	Value (1,000 dollars)		
Complete ball bearings:			
Subject sources[1]	***	***	***
Other sources[2]	***	***	***
Total	281,362	328,546	***
Parts and components:			
Subject sources[1]	***	***	***
Other sources[2]	***	***	***
Total	15,835	20,743	***
Ball bearings and parts thereof:			
Subject sources[1]	22,194	55,113	46,604
Other sources[2]	275,003	294,176	254,181
Total	297,197	349,289	300,785
	Unit value (per unit)		
Complete ball bearings:			
Subject sources[1]	$1.06	$1.36	$1.55
Other sources[2]	1.90	2.78	2.98
Average	1.80	2.37	***
Parts and components:			
Subject sources[1]	1.84	.28	.32
Other sources[2]	.03	.07	.09
Average	***	.07	***

[1] Argentina, Austria, Brazil, Canada, China, Hong Kong, Hungary, Korea, Mexico, Poland, Spain, Taiwan, Turkey, and Yugoslavia.
[2] Primarily non-subject European countries and Japan.

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

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

imports of complete ball bearings from the subject countries followed trends similar to those of imports of ball bearings and parts from such sources. Unit values of complete ball bearings rose, regardless of source.

U.S. producers' imports of ball bearing parts and components from the subject countries were very small throughout the period of investigation, but increased nonetheless, both in quantity and value terms. The far more substantial volume of imports of parts from other sources, however, declined sharply overall, while their value increased steadily. Unit values of such parts were very low throughout the period.

U.S. producers' inventories

The petitioner alleged, and parties in opposition did not dispute, that domestic producers of ball bearings have an advantage in providing quick delivery of most types of bearings. Many buyers of bearings, particularly distributors, prefer to buy domestically as a result.[56] Average lead times for domestic producers ranged from 3-5 days to 10 months for OEM sales and from stock (i.e., within 24 hours) to 4 months for distributor sales. With regard to OEM sales, most producers could promise delivery within 90 days, whereas on distributor accounts, deliveries were reported as generally from stock. Lead times were generally longer for bearings of ABEC ratings of 5 and higher.

Twenty-one firms provided data on their end-of-period inventories of complete ball bearings, and eight firms on inventories of ball bearing parts and components, during the period of investigation (table 7). With regard to complete bearings, U.S. producers' yearend inventories rose from *** bearings in 1988 to nearly *** bearings in 1989, accelerating their increase to a level of over *** bearings in 1990. Movements in yearend inventory levels of parts, though, were different, first declining in 1989, then rebounding in 1990 to a level 18-percent greater than that of 1988.

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[56] Transcript, pp. 53, 72. Although producers are believed to have an advantage in delivery, they generally do not produce to stock. For example, Torrington indicated that certain "core" items are always kept on hand, but that they constitute less than 50 percent of its total bearing line. Transcript, p. 66. Nevertheless, producers may also achieve their goal of quick delivery through use of flexible production schedules, an advantage most importers do not possess.

Torrington also alleged that its delivery record has improved substantially since the period of investigation covered in the 1988-89 antifriction bearings investigations; petitioner's postconference brief, p. 77. Torrington indicated that its average lead time is now no longer than 12-14 weeks, and that for "core" items, a 48-hour guaranteed delivery program went into effect as of November 1990. Transcript, p. 71.

Table 7
Ball bearings and parts thereof: U.S. producers' inventories, by products, as of December 31, 1988-90

Item	1988	1989	1990
	Inventories (1,000 units)		
Complete ball bearings.....	***	***	***
Parts and components[1].....	***	***	***
	Ratio to U.S. shipments (percent)[2]		
Complete ball bearings.....	10.5	12.2	16.9
Parts and components[1].....	20.2	17.7	25.7

[1] Includes inventories of parts and components intended for consumption in ball bearing production.
[2] Ratios are based on data supplied by firms that reported both inventory and shipments information.

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

As a share of U.S. shipments, trends in the data parallel those manifested when inventory levels are examined. Specifically, the ratio of yearend inventories of complete ball bearings to preceding-period shipments rose steadily from 11 percent in 1988 to 17 percent in 1990, while the corresponding ratio for parts dropped from 20 percent in 1988 to 18 percent in 1989, before reversing direction, reaching 26 percent in 1990.

Three producers reported unusual occurrences which may have had an impact on the inventory data presented here. ***, which purportedly increased inventory levels. Similarly, ***, leading to a temporary increase in inventories. Finally, Torrington attributed ***.[57]

U.S. employment, wages, and productivity

Of the 25 firms reporting production of ball bearings and/or parts thereof, all firms provided usable employment data on all products produced in their establishments, and 19 firms provided usable data on ball bearings (table 8). Only five producers were able to provide separate employment data regarding production of parts and components.[58]

[57] Torrington also noted ***.
[58] These data are presented in app. G. For 3 of these producers, such parts were exclusively dedicated to internal ball bearing production. Such data are not presented in the appendix.

Table 8
Total establishment employment and average number of production and related workers producing complete ball bearings, hours worked,[1] wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs, 1988-90[2]

Item	1988	1989	1990
Total number of employees....	17,324	17,628	17,722
	Number of production and related workers (PRWs)		
Complete ball bearings.....	7,954	8,280	8,133
All products.....	15,065	15,419	15,445
	Hours worked by PRWs (1,000 hours)		
Complete ball bearings.....	16,836	17,684	17,509
All products.....	32,070	33,092	32,984
	Wages paid to PRWs (1,000 dollars)		
Complete ball bearings.....	186,676	204,188	209,329
All products.....	382,672	409,165	429,737
	Total compensation paid to PRWs (1,000 dollars)		
Complete ball bearings.....	241,666	267,757	269,570
All products.....	491,205	530,548	542,223
	Hourly wages paid to PRWs[3]		
Complete ball bearings.....	$11.09	$11.55	$11.96
All products.....	11.93	12.36	13.03
	Hourly total compensation paid to PRWs[3]		
Complete ball bearings.....	$14.35	$15.14	$15.40
All products.....	15.32	16.03	16.44
	Productivity (units per hour)[4]		
Complete ball bearings.....	9.6	9.9	11.5
	Unit labor costs (per unit)[5]		
Complete ball bearings.....	$1.50	$1.53	$1.34

[1] Includes hours worked plus hours of paid leave time.
[2] Firms providing employment data accounted for 84 percent of reported total U.S. shipments of complete ball bearings (based on quantity) in 1990.
[3] Calculated using data from firms that provided information on both compensation paid and hours worked.
[4] Calculated using data from firms that provided information on both hours worked and production.
[5] On the basis of total compensation paid. Calculated using data from firms that provided information on both total compensation paid and production.

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

The number of workers employed in the production of complete ball bearings increased between 1988 and 1989, by 4 percent, but then dropped off in 1990. The overall increase for the period was 2 percent. Hours worked by these employees followed a similar pattern, but wages and total compensation increased steadily, both on their own terms and on an hourly basis. Productivity increased strongly during the 3-year period, particularly between 1989 and 1990. Unit labor costs increased slightly between 1988 and 1989, then fell substantially in 1990.

Twelve producers reporting employment data noted that their workforces are represented by unions.[59] These firms, and the unions involved, are listed in the following tabulation:

Company	Union
SKF	United Steel Workers (USW), United Auto Workers (UAW)
***	International Association of Machinists (IAM)
Torrington	UAW/IAM[1]
***	United Electrical, Radio, and Machinery Workers of America
***	IAM and Aerospace Workers
***	USW
***	UAW, Aerospace and Agricultural Implement Workers, Local 1615
***	UAW
***	UAW Local 798
***	UAW
***	USW, IAM - Aerospace
***	USW

[1] Connecticut plants only.

In its questionnaire, the Commission requested firms producing ball bearings and/or parts thereof to indicate whether the same production and related workers are employed in the production of both complete bearings and parts thereof, or in the production of other types of antifriction bearings. One producer, ***, indicated that its workers engaged in complete ball bearing production also produce steel balls. Four additional producers, ***, indicated that in one or more plants, their production workers also produce cylindrical and spherical roller bearings.[60] The majority of producers responding to the Commission's questionnaire, however, indicated that even in

[59] These firms accounted for 65 percent of U.S. production of complete ball bearings in 1990.

[60] An additional producer, ***, indicated that its workers engaged in ball bearing production also produce other products, but that their function is limited to maintenance and tooling.

a capital-intensive industry such as ball bearings, workers would have to be extensively retrained in order to work on production lines producing other types of antifriction bearings.

The Commission also requested firms producing ball bearings and/or parts thereof to provide detailed information concerning reductions in the number of production and related workers producing such products, if such reductions involved at least 5 percent of the workforce, or more than 50 workers. The reported layoffs are shown in the following tabulation:[61]

Firm	Product	Date	Number of workers	Duration	Reason	
*	*	*	*	*	*	*

Financial experience of U.S. producers

Twenty-five U.S. producers of ball bearings and/or parts thereof in 1990 supplied financial information. Ball bearing operations accounted for an average of 70.8 percent of net overall establishment sales during the period covered by the investigations, steadily increasing from 69.4 percent of such sales in 1988 to 73.2 percent in 1990. Seventeen of the twenty-five producers had fiscal years ending December 31, and these companies accounted for 75.8 percent of overall establishment sales and 82.7 percent of ball bearing sales.

Overall establishment operations.-- Aggregate overall establishment financial results for all responding producers are presented in table 9. Four producers--***--accounted for 52.8 percent of overall establishment sales and 57.8 percent of ball bearing sales in 1990. Net sales information for these producers in 1990 is shown in the tabulation below:

Company	Ball bearings and parts	Overall establishment	Ball bearings as a share of establishment		
	1,000 dollars		Percent		
*	*	*	*	*	*	*

As shown in table 9, net sales increased $246 million (12.5 percent) from 1988 to 1989 before decreasing $30 million (1.3 percent) from 1989 to 1990. For 1990, however, FAG (1989 overall establishment net sales of $***) was unable to provide financial information. ***. Another reason for the decline

[61] All the layoffs concerned production of complete bearings.

Table 9
Income-and-loss experience of U.S. producers on the overall operations of their establishments wherein ball bearings and parts are produced, fiscal years 1988-90

Item	1988	1989	1990
	Value (1,000 dollars)		
Net sales	1,962,366	2,207,902	2,178,340
Cost of goods sold	1,592,012	1,751,819	1,780,948
Gross profit	370,354	456,083	397,392
Selling, general, and administrative expenses	226,405	249,956	261,745
Operating income	143,949	206,127	135,647
Startup or shutdown expense	13,826	12,773	24,482
Interest expense	44,904	51,821	41,869
Other expense, net	21,722	36,029	25,694
Net income before income taxes	63,497	105,504	43,602
Depreciation and amortization	93,101	101,192	116,234
Cash flow[1]	156,598	206,696	159,836
	Ratio to net sales (percent)		
Cost of goods sold	81.1	79.3	81.8
Gross profit	18.9	20.7	18.2
Selling, general, and administrative expenses	11.5	11.3	12.0
Operating income	7.3	9.3	6.2
Net income before income taxes	3.2	4.8	2.0
	Number of firms reporting		
Operating losses	4	4	7
Net losses	5	7	12
Data	23	24	24

[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.

was *** decrease in sales from 1989 to 1990 due to ***). Sixteen of the twenty-two producers that provided information for all 3 years of the investigation reported increased net sales every year, and only 3 of those 22 producers had lower net sales in 1990 than in 1988.

The large start-up and shut-down expenses reported were primarily due to *** (*** in 1989 and 1990, respectively) and *** (*** in 1988, 1989, and 1990, respectively) ***. The "other expenses" category included many items, but the largest were early retirement inducements ($***) and retraining union workers idled ($***).

With regard to interest expense, three companies--***--reported none. These three companies (which had about 26 percent of net sales in 1990) are part of larger corporate entities where interest income and interest expense are typically not incurred at the establishment level, and were not allocated in these preliminary investigations. Therefore, interest expense is probably understated and net income is probably overstated.

Operations on ball bearings and parts thereof.--Aggregate income-and-loss data for the U.S. producers' ball bearing operations are presented in table 10. As shown in the table, net sales increased 12.9 percent from $1.36 billion in 1988 to $1.54 billion in 1989, as 22 of the 23 producers reporting data for both periods had increases (see table 11, which displays key financial data for producers' ball bearing operations). Variance analysis indicates that the increase was the result of an approximate 15 percent price increase, which more than offset a slight decrease in volume.

While sales increased to $1.59 billion in 1990, the increase was more moderate (3.7 percent), as only 15 of the 22 producers reporting data during 1989 and 1990 had sales increases. The volume/price fluctuation from 1989 to 1990 was the direct opposite of the previous year, as an approximate 11-percent increase in volume offset a 7-percent sales price decrease. Even though net sales increased in the aggregate from 1988 to 1990 and for most producers, the number of companies reporting operating and net losses climbed steadily throughout the period, from 7 to 9 and from 9 to 13, respectively.

The data in table 11 show that five companies--***--consistently outperformed the rest of the industry by a wide margin. In the aggregate these five companies had 33.6 percent of sales of U.S. producers, but 94 percent of the operating profits reported during the period of investigation. In 1990, they reported operating profits of about $94 million, while the rest of the industry had an operating loss of about $7 million. With respect to net income, they reported aggregate profits of about $212 million from 1988 to 1990, while the rest of the industry reported net losses of about $119 million. Their performance is in direct contrast to that of ***, and to a lesser extent, ***.

Table 10
Income-and-loss experience of U.S. producers on their operations producing ball bearings and parts, fiscal years 1988-90

Item	1988	1989	1990
	Value (1,000 dollars)		
Net sales	1,361,159	1,537,327	1,594,653
Cost of goods sold	1,118,335	1,246,217	1,311,766
Gross profit	242,824	291,110	282,887
Selling, general, and administrative expenses	155,792	173,980	195,924
Operating income	87,032	117,130	86,963
Startup or shutdown expense	13,474	12,395	14,733
Interest expense	31,340	36,449	29,709
Other expense, net	15,619	23,327	17,254
Net income before income taxes	26,599	44,959	25,267
Depreciation and amortization	68,488	75,648	90,137
Cash flow[1]	95,087	120,607	115,404
	Ratio to net sales (percent)		
Cost of goods sold	82.2	81.1	82.3
Gross profit	17.8	18.9	17.7
Selling, general, and administrative expenses	11.4	11.3	12.3
Operating income	6.4	7.6	5.5
Net income before income taxes	2.0	2.9	1.6
	Number of firms reporting		
Operating losses	7	8	9
Net losses	9	11	13
Data	23	24	24

[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 11
Income-and-loss experience of U.S. producers on their operations producing ball bearings and parts, by firms, fiscal years 1988-90

Item	1988	1989	1990
	Value (1,000 dollars)		
Net sales:			
SKF	***	***	***
Torrington	***	***	***
FAG	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
American NTN	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Emerson Power Transmission	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Total	1,361,159	1,537,327	1,594,653
Operating income or (loss):			
SKF	***	***	***
Torrington	***	***	***
FAG	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
American NTN	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Emerson Power Transmission	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Total	87,032	117,130	86,963

Table continued on next page

Table 11--Continued
Income-and-loss experience of U.S. producers on their operations producing ball bearings and parts, by firms, fiscal years 1988-90

Item	1988	1989	1990
	Value (1,000 dollars)		
Net income or (loss) before income taxes:			
SKF	***	***	***
Torrington	***	***	***
FAG	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
American NTN	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Emerson Power Transmission	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Total	26,599	44,959	25,267
	Ratio to net sales (percent)		
Operating income or (loss):			
SKF	***	***	***
Torrington	***	***	***
FAG	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
American NTN	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Emerson Power Transmission	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Average	6.4	7.6	5.5

Table continued on next page

Table 11--Continued
Income-and-loss experience of U.S. producers on their operations producing ball bearings and parts, by firms, fiscal years 1988-90

Item	1988	1989	1990
	Ratio to net sales (percent)		
Net income or (loss) before income taxes:			
SKF	***	***	***
Torrington	***	***	***
FAG	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
American NTN	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Emerson Power Transmission	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Average	2.0	2.9	1.6

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

Market share (as a percent of net sales of U.S. producers) information of selected U.S. producers from 1988 to 1990 is shown in the tabulation below:

Company			1988	1989		1990
*	*	*	*	*	*	*

On the surface, there appears to be no direct correlation between change in market share and profitability. Of the five firms which have done well, only *** has succeeded in measurably increasing its share, while *** stayed virtually flat. On the other hand, of the three firms that did relatively poorly, ***. The rest of the industry, which had mixed results, had its share increase measurably.

With respect to gross margin (gross profits as a percent of net sales), the overall industry average increased from 17.8 percent in 1988 to 18.9 percent in 1989 before settling back to 17.7 percent in 1990. Not surprisingly, the companies which did well had margins well in excess of the industry average (over 30 percent), while those which did poorly had relatively low values (often less than 10 percent). ***. These two companies apparently need a large volume of sales to compensate for their high capital costs.

As shown in table 10, aggregate selling, general, and administrative (SG&A) expenses (as a percent of net sales) rose irregularly from 11.4 percent in 1988 to 12.3 percent in 1990. This industry average is skewed, however, due to the combined effects of ***. Without ***, the industry average for this expense was in the 13- to 14-percent range. Interestingly, several of the more successful companies had SG&A expenses well above the industry norm. ***.

Investment in productive facilities and return on assets.--The value of property, plant, and equipment for the responding U.S. companies, along with the returns on total assets and the book value of fixed assets are shown in table 12.

Research and development expenses.--Outlays for research and development expenses for the responding U.S. companies are shown in table 13. R&D spending (in millions) for the benefit of ball bearings was dominated by ***.

Capital expenditures.--The capital expenditures reported by U.S. producers are shown in table 14. Several companies reported millions of dollars in expenditures annually. The companies that had the biggest outlays on ball bearing equipment, however, were ***.

Capital and investment.--The Commission requested U.S. producers to describe any actual or potential negative effects of imported ball bearings and/or parts thereof from the subject countries on their firm's growth, investment, ability to raise capital, or existing development and production efforts. The responses are presented in appendix H.

Table 12
Value of property, plant, and equipment and return on assets of U.S. producers' establishments wherein ball bearings and parts are produced, fiscal years 1988-90

Item	1988	1989	1990
	Value (1,000 dollars)		
All products:			
Fixed assets:			
Original cost	1,276,958	1,452,243	1,494,627
Book value	654,764	781,521	812,277
Total assets[1]	1,609,289	1,688,088	1,729,987
Ball bearings and parts:			
Fixed assets:			
Original cost	982,100	1,097,083	1,161,443
Book value	521,800	614,398	641,875
Total assets[2]	1,224,810	1,310,780	1,375,978
	Return on book value of fixed assets (percent)[3]		
All products:			
Operating return[4]	22.0	26.5	16.4
Net return[5]	9.7	13.6	5.4
Ball bearings and parts:			
Operating return[4]	16.7	19.2	12.9
Net return[5]	5.1	7.4	3.7
	Return on total assets (percent)[3]		
All products:			
Operating return[4]	8.9	12.4	7.9
Net return[5]	4.1	6.7	2.9
Ball bearings and parts:			
Operating return[4]	7.1	9.1	6.2
Net return[5]	2.2	3.6	1.9

[1] Defined as book value of fixed assets plus current and noncurrent assets.
[2] Total establishment assets are apportioned, by firm, to product groups on the basis of the ratio of the respective book values of fixed assets.
[3] Computed using data from only those firms supplying both asset and income-and-loss information, and as such, may not be calculable from data presented.
[4] Defined as operating income or loss divided by asset value.
[5] Defined as net income or loss divided by asset value.

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

Table 13
Research and development expenses of U.S. producers of ball bearings and parts, fiscal years 1988-90

(In thousands of dollars)

Item	1988	1989	1990
All products	32,382	37,625	41,051
Ball bearings and parts	23,767	27,219	28,450

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

Table 14
Capital expenditures by U.S. producers of ball bearings and parts, fiscal years 1988-90

(In thousands of dollars)

Item	1988	1989	1990
All products:			
Land and land improvements	1,630	2,426	1,349
Building and leasehold improvements	20,843	48,426	21,200
Machinery, equipment, and fixtures	100,795	193,056	165,594
Total	123,268	243,908	188,143
Ball bearings and parts:			
Land and land improvements	1,461	2,128	1,059
Building and leasehold improvements	11,940	35,144	16,636
Machinery, equipment, and fixtures	71,406	138,404	135,351
Total	84,807	175,676	153,046

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

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[62]--
>
> (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,

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[62] 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."

> (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,
>
> (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.[63]

The available information on the nature of the subsidies alleged by the petitioner (item (I) above) is presented in the section of this report entitled "Nature and extent of the alleged subsidies and LTFV sales;" 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); and any other threat indicators, if applicable (item (VII) above) follows.[64]

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[63] 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."

[64] Parties testified at the conference that they are unaware of any dumping findings by countries on either complete ball bearings or parts and components thereof imported from the countries under investigation.

U.S. importers' inventories

Thirty of the thirty-nine firms reporting imports of ball bearings and/or parts thereof also reported end-of-period inventories of those imports. These data are presented in table 15.

From 1988 to 1989, end-of-period inventories of imports of complete ball bearings from the 14 subject countries increased sharply, nearly doubling their 1988 level in 1989, before slowing their rate of increase in 1990. Among the countries, only importers of complete ball bearings from Argentina, Brazil, and Spain decreased their inventory levels during the period of investigation. Firms importing from countries not subject to investigation also increased their inventory holdings, but the main component of that increase came between 1989 and 1990. When viewed together, total importer inventories increased steadily over the 3-year period. Inventories of imports of ball bearing parts and components were relatively insignificant.

The ratio of end-of-period inventories of complete ball bearings to reported U.S. shipments of imports from the 14 subject countries increased from 43 percent in 1988 to 50 percent in 1990. Movements in this ratio with respect to inventories from other sources followed a similar but more marked trend. As seen from the table, importers of complete ball bearings from several of the subject countries kept very high ratios of inventories to shipments.[65]

As seen by comparing the table above to table 7, importers generally tend to keep much higher levels of inventories than do U.S. producers.[66] Reported lead times ranged from stock to 5 months, with longer lead times being reported for sales to OEM accounts. The majority of responding importers indicated that they could fill orders from stock. Nonetheless, importers testifying at the conference noted that those firms relying on stock deliveries are at a competitive disadvantage vis-a-vis U.S. producers when responding to quick orders, if product must be sourced from overseas.[67]

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[65] This primarily reflects low levels of shipments at the beginning of the period of investigation.

[66] Torrington alleged at the conference that importers' inventories of ball bearings tend to be greater than those kept by domestic producers. Transcript, p. 46. Representatives of U.S. importers of ball bearings disagreed, however, noting that importers prefer not to hold large levels of inventories, if possible, because to do so is very expensive. Transcript, p. 185.

[67] Transcript, p. 172. From a practical point of view, it is impossible to hold inventory on the thousands of varieties of ball bearings currently sold in the U.S. market. For instance, ***. Field visit with ***.

Table 15
Ball bearings and parts thereof: End-of-period inventories of U.S. importers, by products and sources, as of December 31, 1988-90

Item	1988	1989	1990
	Quantity (1,000 units)		
Complete ball bearings:			
Argentina	***	***	***
Austria	152	208	***
Brazil	***	***	***
Canada	***	2,583	***
China	***	***	***
Hong Kong	***	***	***
Hungary	***	***	***
Korea	***	***	***
Mexico	***	***	***
Poland	***	***	***
Spain	***	***	***
Taiwan	***	***	***
Turkey	***	***	***
Yugoslavia	***	***	***
Subtotal	12,888	23,783	25,247
Other sources	62,002	67,118	79,280
Total	74,890	90,901	104,527
Parts and components:[1]			
China	***	***	***
Republic of Korea	***	***	***
Taiwan	***	***	***
Subtotal	***	***	***
Other sources	***	***	***
Total	***	***	***
	Ratio to U.S. shipments of imports (percent)		
Complete ball bearings:			
Argentina	132.5	26.3	51.8
Austria	233.8	208.0	286.5
Brazil	126.9	118.2	58.0
Canada	9.2	16.3	23.3
China	46.8	72.4	94.8
Hong Kong	33.7	45.6	42.7
Hungary	107.4	116.2	98.8
Korea	8.9	11.8	15.7
Mexico	167.0	64.9	96.2
Poland	177.1	93.5	65.7
Spain	225.7	66.2	58.0
Taiwan	65.7	74.6	59.9
Turkey	(2)	461.9	90.2
Yugoslavia	(2)	109.3	370.6
Average	43.4	46.4	49.6
Other sources	23.2	32.1	44.8
Average	25.1	34.9	45.9

[1] Responding importers reported no end-of-period inventories of ball bearing parts and components from any subject countries other than China, Korea, and Taiwan.
[2] Not available.

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

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

With the exception of orders from China, importers reported no particular problems in sourcing ball bearings from any of the 14 countries subject to investigation.[68] According to responding importers, customers for imported ball bearings generally do not specify country of origin when ordering.[69]

In its questionnaire, the Commission requested importers to list any expected deliveries of ball bearings and/or parts thereof from the 14 subject countries after December 31, 1990. Data received in response to this request are presented in the following tabulation:

Importer		Source	Quantity (1,000 units)		Expected delivery	
*	*	*	*	*	*	*

Ability of foreign producers to generate exports and availability of export markets other than the United States[70]

The Argentine industry.--According to the petition, only one firm, SKF Argentina, S.A., produces ball bearings and/or parts thereof in Argentina. This firm has ***. Ball bearings make up over *** percent of SKF Argentina's production, the rest constituting ***.[71] ***.

Although the petitioner was aware only of SKF's Argentine facility, counsel for SKF also submitted data on the operations of another SKF affiliate, Huber S.A.I.C., ***. Data from both firms are presented in table 16.

Argentina's production of ball bearings and parts increased in 1989 by *** percent, before declining in 1990; 1991 projections indicate a renewed increase in production. Reported capacity increased between 1988 and 1989. Capacity utilization declined throughout the period of investigation, but is expected to rebound in 1991.

Reported exports to the United States more than tripled between 1988 and 1989, then fell back in 1990 to *** percent above their 1988 level; as a ratio to production, they never exceeded *** percent. The share of exports to the United States in total exports first increased, then decreased to approximately *** percent.

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[68] Transcript, p. 166. Peer Bearing, a major importer of ball bearings from China, noted serious delivery problems with these bearings, and indicated that it prefers to source its bearings elsewhere if possible.

[69] Transcript, p. 169.

[70] For the most part, information presented in the tables in this section relates to the combined category of ball bearings and parts. Firms were not requested to separate data on parts and components of ball bearings from data on complete bearings.

[71] ***.

Table 16
Ball bearings and parts thereof: Argentina's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

* * * * * * *

The Austrian industry.--The petitioner identified two producers of ball bearings and parts thereof in Austria: FAG Austria Walzlager and SKF Steyr A.G.[72] Both firms, through counsel, responded to the Commission's request for data. Both FAG Walzlager and SKF Steyr indicated that, to varying degrees, ***. FAG noted that in 1990, ***, and SKF Steyr noted that ***.[73] Currently, only *** percent of the capacity of the Steyr plant is dedicated to ball bearings.[74] Both FAG and SKF indicated ***. Submitted data are presented in table 17.

Table 17
Ball bearings and parts thereof: Austria's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

* * * * * * *

As seen from the table, Austrian production of ball bearings and parts thereof declined somewhat between 1988 and 1989, then plummeted in 1990, and is expected to fall further in 1991. Capacity to produce such products also declined sharply throughout the period. Capacity utilization ratios were at high levels during the period of investigation. Exports to the United States increased markedly in 1989, but then fell back in 1990 to approximately their 1988 level; such exports are projected to decline dramatically in 1991. As a ratio to production and as a share of total exports, exports to the United States ranged from *** to *** percent during 1988-90, but are predicted to drop sharply in 1991.

The Brazilian industry.--The petition named six firms producing ball bearings and/or parts thereof in Brazil. Five of these firms are subsidiaries and/or divisions of multinational bearing producers: Koyo, NSK, Nachi Fujikoshi of Japan (Nachi), SKF, and FAG, respectively. Once again, SKF and FAG, through their respective counsels, provided data in response to the Commission's questionnaire; such data are presented in table 18.[75]

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[72] This latter firm was formerly independent, but became part of the SKF Group in December 1988.

[73] Also see transcript, p. 132.

[74] The plant produces mostly cylindrical roller bearings.

[75] The Brazilian affiliates of Koyo, Nachi, and NSK were not represented by counsel in these investigations. Thus, the Commission requested the American

(continued...)

Table 18
Ball bearings and parts thereof: Brazil's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

* * * * * * *

As can be seen from the table, these firms' production of ball bearings and parts thereof fell overall between 1988 and 1990, and is projected to decline further in 1991. Between 1989 and 1990, as capacity declined at a slower rate than did production, capacity utilization fell from *** to *** percent. Exports to the United States surged between 1988 and 1989, before falling back in 1990, and are predicted to decrease sharply in 1991. Such exports accounted for *** of production throughout the period, and also constituted *** total exports.

SKF's Brazilian plant, located in Sao Paulo, is ***, devoting *** percent of its capacity to ball bearing production. SKF based its capacity data on ***. By contrast, FAG's Brazilian operation is ***, dedicating *** percent of its capacity to this product.[76]

The Canadian industry.--Both Canadian ball bearing producers identified in the petition are affiliated with multinational companies. NTN Bearing Canada, Ltd., with production facilities in Mississauga, Ontario, is affiliated with NTN of Japan, and FAG Canada, Ltd., with its plant in Stratford, Ontario, is a subsidiary of FAG Germany. NTN's plant, ***, is ***-percent dedicated to ball bearing production and, despite ***. FAG's plant also ***, with *** percent of its production in ball bearings and parts thereof. These firms, through their respective counsels, provided data on their Canadian operations, which are presented in table 19.

Table 19
Complete ball bearings: Canada's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

* * * * * * *

Canadian production of complete bearings increased by *** percent between 1988 and 1989, before declining by *** percent in 1990, and is expected to remain fairly constant in 1991. A substantial increase in capacity occurred between 1989 and 1990; yet, utilization levels remained high throughout the

---

[75](...continued)
Embassy in Brasilia to provide data on the operations of the six firms named in the petition, including those not represented by counsel. No data have been supplied in response to this request.

[76] FAG noted that its Brazilian facility ***.

period. Exports to the United States declined slowly but steadily from 1988 to 1990, but are projected to pick up slightly in 1991. As a ratio to production, exports to the United States fell steadily from 1988 to 1990, as did their share of total exports.

The Chinese/Hong Kong industry.--The petition indicated that, according to the Anti-Friction Bearing Manufacturers Association, there are no firms with actual manufacturing facilities in Hong Kong. Thus, the petitioner alleged that bearings being classified as being of Hong Kong origin were actually being manufactured in China.[77] Further, the petitioner alleged that over 25 factories in China produce and/or export ball bearings.[78]

There is no information currently on the record that would indicate the existence of an industry manufacturing ball bearings, or parts thereof, in Hong Kong. The Commission contacted both the American consulate in Hong Kong and the American Embassy in Beijing in order to obtain data; to date, no response has been provided. Moreover, as Chinese producers of bearings were not represented by counsel, data on the Chinese industry were not provided.

The Hungarian industry.--The sole Hungarian producer of ball bearings and parts is Magyar Gordulocsopagy Muvek (MGM), with its head office in Debrecen, Hungary. MGM produces ***, with *** percent of its production in ball bearings. It operates its facilities ***. Data on MGM were provided by its counsel, and are summarized in table 20.

Table 20
Ball bearings and parts thereof: Hungary's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

*	*	*	*	*	*	*
*	*	*	*	*	*	*

The Korean industry.--The petitioner named 9 firms producing ball bearings, and/or parts thereof, in Korea.[79] Three firms were named as companies related to various multinational ball bearing producers: Korea GMB, related to Koyo; Sammi Precision Industries (Sammi), related to FAG; and Korea Machinery Co. (KMC), related to NSK. The latter two firms were represented by counsel, and provided data in response to the Commission's foreign producer questionnaire; Korea GMB was not represented by counsel, and to date the

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[77] Peer Bearing, a major U.S. importer of ball bearings from China and Hong Kong, indicated that, ***.

[78] Counsel for Peer Bearing indicated at the conference that only a handful of these factories actually produce for export, and many of the factories do not produce ball bearings.

[79] Four of these firms were characterized as pillow block producers; i.e., producers of bearing housings.

Commission has received no response from the U.S. Embassy in Seoul to its request for information on the Korean ball bearing industry. Information provided by Sammi and KMC is presented in table 21.

As seen from the table, Korean production of ball bearings and parts thereof grew substantially over the 1988-90 period; the 1990 production levels were over *** percent higher than those of 1988. Capacity, however, increased faster than production; thus, utilization levels dropped. As a ratio to production, exports to the United States were low throughout the period of investigation; such exports, though, *** between 1988 and 1990. As a share of total exports, however, exports to the United States plummeted from *** percent in 1988 to *** percent in 1990, and are expected to decline further to only *** percent in 1991.

Table 21
Ball bearings and parts thereof: Korea's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

* * * * * * *

Of the two firms reporting data, ***, with *** percent of its bearing production dedicated to ball bearings. It operates its plant ***. Capacity figures in the table are affected by ***.[80]

The Mexican industry.--SKF Industrias Mexicanas S.A. de C.V. (SKF Mexico), an affiliate of SKF Sweden, is the *** Mexican firm producing merchandise subject to these investigations. Headquartered in Mexico City, and with its plant in Puebla, Mexico, SKF Mexico dedicates *** percent of its bearing production to ball bearings. It operates the Puebla plant ***. SKF Mexico has ***. It reported that in 1987 and 1988, ***, resulting in a decline in the Mexican affiliate's production of ***. SKF Mexico indicated that it plans to ***. Data on SKF Mexico, as provided by counsel, are presented in table 22.

Table 22
Ball bearings and parts thereof: Mexico's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

* * * * * * *

* * * * * * *

[80] ***. Transcript, p. 158.

The Polish industry.--The petition named one producer of ball bearings in Poland, Fabryka Lozysk Tocznych (FLT), with manufacturing facilities in Krasnik, Poland. In response to a request from the Commission, counsel for the sole Polish exporter of ball bearings, Impexmetal, provided data on FLT's Krasnik plant, as well as a second plant in Kielce, Poland. Combined data from FLT's plants are presented in table 23.

* * * * * * *

Table 23
Ball bearings and parts thereof: Poland's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

* * * * * * *

The state Polish agency exporting ball bearings to the United States, Impexmetal, ***.[81] Ball bearing production is ***.[82] Both plants ***.

The Spanish industry.--The petition listed 3 firms as having production facilities in Spain capable of exporting ball bearings and parts to the United States. Two of these firms were not represented by counsel in these preliminary investigations; as a result, data from these firms were not provided.[83] Counsel for SKF supplied data on SKF's Spanish plant, SKF Espanola, S.A., in Madrid. The output of this plant, premised on ***, consists of ***, of which ball bearings comprise *** percent.[84] Data supplied by SKF regarding SKF Espanola are presented in table 24.

* * * * * * *

Table 24
Ball bearings and parts thereof: Spain's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

* * * * * * *

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[81] Until 1990, Impexmetal ***.

[82] The Krasnik and Kielce plants ***. Counsel for Impexmetal and FLT claimed that ***.

[83] The Commission also requested the American Embassy in Madrid to provide such data on the operations of the Spanish firms listed in the petition. To date, the Commission has not received a response to that request.

[84] SKF noted that its Spanish facility was used as a "bridge" supply source for several types of commodity bearings while its main production lines for such bearings were transferred from Italy to the United States; this accounts for the surge in exports to the United States in 1989. Transcript, p. 114.

The Taiwan industry.--Although the petition listed four manufacturers and/or exporters of ball bearings located in Taiwan, the Commission received data from only the largest of these firms, Tung Pei Industrial Co., Ltd. (Tung Pei). Two additional firms are owned by SKF; however, unlike other SKF worldwide facilities, counsel for SKF did not provide data on these firms.[85] The fourth firm, allegedly related to Nachi, was not represented by counsel. The American Institute in Taiwan in Taipei has not responded to date to the Commission's request for information on the ball bearing industry in Taiwan.

Tung Pei, established in 1967, has its largest production establishment in Taipei, which is ***.[86] It operates this plant for ***. Information submitted by counsel for Tung Pei is provided in table 25.

Table 25
Ball bearings and parts thereof: Taiwan's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

*	*	*	*	*	*	*
*	*	*	*	*	*	*

The Turkish industry.--Torrington named Ortadogu Rulman Sanayi A.S. (ORS) as the sole Turkish manufacturer and exporter of ball bearings and/or parts thereof. It further alleged that ORS sells its ball bearings through Georg Mueller Nuernberg of Germany, among other sources.[87] According to ORS, it specializes in exporting the larger sizes of radial bearings. Its facility, in Ankara, Turkey, was established in 1983 to serve the Turkish home market; it ***, and is a ***, operating ***.[88] Information supplied by ORS concerning its ball bearing production and shipments is presented in table 26.

*	*	*	*	*	*	*

[85] SKF noted that ***.
[86] Transcript, p. 122.
[87] Counsel for ORS denied this assertion. Transcript, p. 147.
[88] Counsel for ORS noted that, after the Turkish home market, ORS' most important market is the European Community. Transcript, p. 150. Further, ORS alleged that import data for Turkey are overstated due to the inclusion of nonradial bearings (e.g., thrust and linear bearings) in the data. ORS maintained that it does not have the capability to produce nonradial bearings. Transcript, p. 167.

Table 26
Ball bearings and parts thereof: Turkey's production, capacity, end-of-period inventories, home-market shipments, and exports to the United States and to all other countries, 1988-91

* * * * * * *

The Yugoslav industry.--The petition named one firm, UNIS International Corp. (UNIS), as being a manufacturer and/or exporter of ball bearings in Yugoslavia. UNIS, which is ***, has production facilities in three locations, according to the petition. Counsel for UNIS, however, indicated that UNIS has not produced and does not currently produce ball bearings, nor does it export them to the United States.[89] Commission staff knows of no other Yugoslav producers of ball bearings and/or parts thereof. As of March 19, 1991, the U.S. Embassy in Belgrade had not provided a response to the Commission's telex requesting information.

Consideration of the Causal Relationship Between Imports of the Subject Merchandise and the Alleged Material Injury

U.S. imports

Imports of complete ball bearings subject to these investigations are provided for under subheadings 6909.19.50, 8482.10.10, 8482.10.50, 8482.80.00, 8483.20.40, 8483.20.80, 8483.30.40, 8483.30.80, and 8708.99.50 of the HTS, and were previously provided for under items 535.27, 536.15, 680.33, 680.34, 680.37, 680.38, 680.39, 680.41, 681.04, 681.10, 681.36, 692.32, and 692.33 of the former Tariff Schedules of the United States (TSUS). Similarly, imports of subject ball bearing parts and components are provided for under subheadings 8482.91.00, 8482.99.10, 8482.99.70, 8483.90.20, 8483.90.30, and 8483.90.70 of the HTS, and were previously provided for under items 680.30, 680.31, 680.37, 680.38, 681.04, and 681.10 of the TSUS. Most of the ball bearings subject to investigation currently enter under HTS item 8482.10.50 and formerly under TSUS item 680.37.

Of the 105 importers who received questionnaires, 68 responded, 39 of which provided usable data on imports and shipments of those imports. Based on official import statistics for ball bearings and parts, responding firms accounted for 60 percent, by value, of imports from the 14 subject countries in 1990. Data in this section regarding the value of ball bearings and parts thereof[90] are based on information submitted in response to Commission

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[89] Letter from Nicholas F. Coward, Baker & McKenzie, to Kenneth R. Mason, Mar. 11, 1991.

[90] Data are not presented here regarding import quantities because construction of an aggregate figure for ball bearings and parts, owing to the large variations in product size and weight per unit between complete bearings and parts of such bearings, is not practical.

questionnaires.[91] U.S. imports of ball bearings and parts, based on official U.S. import statistics for the tariff items listed above, expressed in terms of general imports and alternatively in terms of imports for consumption, are presented in appendix I.

Complete ball bearings.--Imports of complete ball bearings from the subject countries showed an overall increase during the period of investigation (table 27). Such imports increased sharply, by 150 percent, between 1988 and 1989, but declined slightly in 1990, reaching a value of approximately $84 million. Of the 14 countries subject to investigation, all but Canada showed marked increases in import value over the 3-year period.[92] Imports from all other sources, notably including those subject to the 1988-89 investigations, first rose in 1989, then dropped off in 1990 to slightly below their 1988 level. Given the size of these imports and their consequent share in total imports, imports from all sources followed a similar pattern, although their 1990 total was above that of 1988.

Ball bearings and parts.--When imports of complete ball bearings and their parts and components are viewed together, trends in the value of imports from the subject countries are quite similar; namely, a dramatic increase from 1988 to 1989, followed by a slight decline in 1990. Unlike imports of complete ball bearings, imports of ball bearing parts and components from the subject countries increased consistently, representing an overall gain of over 40 percent. Both imports of ball bearings and parts from nonsubject countries, and total imports, first increased in 1989, then fell back somewhat in 1990.

The Commission also collected data on U.S. shipments of imports, and, as was requested of U.S. producers, requested importers to indicate the relative concentration of such shipments with respect to size and tolerance. With regard to tolerance levels, as represented by ABEC ratings, importers from the subject countries were unanimous in reporting shipments limited to bearings rated at ABEC 1 or 3. With respect to size, by approximately a two-to-one margin, importers shipped bearings of 52 millimeters in outside diameter or less.

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[91] Questionnaire data are used here primarily because certain HTS and TSUS items under which ball bearings and parts thereof were imported during the period of investigation are basket categories which contain substantial volumes of imports not subject to investigation. These include HTS item 6909.19.50 (former TSUSA items 535.2700 and 536.1500), under which imports of ceramic bearings enter, and, more significantly, HTS item 8708.99.50 (former TSUSA items 692.3295 and 692.3390), which is reserved for miscellaneous motor vehicle parts. Data presented in app. I do not include imports under these item numbers.

[92] Counsel for the Polish manufacturers and exporters alleged at the conference that import data for Poland are overstated due to improper marking of country of origin. Transcript, p. 164.

Table 27
Ball bearings and parts thereof: U.S. imports, by sources and products, 1988-90

(In thousands of dollars)[1]

Item	1988	1989	1990
Complete ball bearings:			
Argentina	***	***	***
Austria	1,445	5,012	7,135
Brazil	***	***	1,407
Canada	***	***	***
China	3,363	6,407	6,408
Hong Kong	***	***	***
Hungary	***	***	***
Korea	***	***	***
Mexico	***	***	***
Poland	***	***	***
Spain	***	***	***
Taiwan	***	***	***
Turkey	0	655	1,171
Yugoslavia	***	***	***
Subtotal	35,799	89,470	83,599
Other sources[2]	354,158	382,938	***
Total	389,957	472,408	***
Parts and components:[3]			
Canada	***	***	***
Korea	***	***	***
Mexico	***	***	***
Spain	***	***	***
Taiwan	***	***	***
Subtotal	2,062	2,298	2,934
Other sources[2]	14,824	19,656	***
Total	16,886	21,954	***
Ball bearings and parts thereof:			
Argentina	***	***	***
Austria	1,445	5,012	7,135
Brazil	***	***	1,407
Canada	20,198	25,465	22,903
China	3,363	6,407	6,408
Hong Kong	***	***	***
Hungary	***	***	***
Korea	***	***	***
Mexico	1,686	9,698	11,254
Poland	***	***	***
Spain	***	***	***
Taiwan	***	***	***
Turkey	0	655	1,171
Yugoslavia	***	***	***
Subtotal	37,861	91,768	86,533
Other sources[2]	368,982	402,594	380,343
Total	406,843	494,362	466,876

[1] C.i.f., duty-paid value.
[2] Primarily European countries and Japan.
[3] Responding importers reported no imports of ball bearing parts and components from any subject countries other than Canada, Korea, Mexico, Spain, and Taiwan.

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

U.S. market penetration by imports

The Commission received usable data from 35 of the 51 producers of ball bearings and parts thereof to whom it sent questionnaires. Most of the major known producers of ball bearings provided data to the Commission.[93] On the basis of these data, reported U.S. shipments are believed to constitute 68 percent, by value, of total U.S. shipments of ball bearings and parts thereof during 1989.[94] Moreover, reported shipments of imports of ball bearings and parts thereof make up 75 percent, by value, of 1989 official import statistics for the HTS items under which such products enter. Because of these relatively high levels of coverage, data on the penetration of the U.S. market by imports of ball bearings and parts are based on data provided in response to Commission questionnaires.[95]

The penetration of the U.S. market for ball bearings and parts thereof by imports of such products from all countries, in terms of value, gained over 3 percentage points in 1989 from its 1988 base of 26.2 percent but then lost nearly 2 points in 1990, ending up with approximately 28 percent of the market (table 28). Combined subject imports increased their market share markedly in 1989, rising from 2.8 percent of the market in 1988 to 5.5 percent in 1989, and then maintained this share in 1990. Increases in market share were achieved by all countries subject to investigation except Argentina, Canada, and Hungary. Nonetheless, only Canada and Spain accounted for 1 percent or more of the market at any time during the 3-year period.

Prices

Market characteristics.[96]--Prices of ball bearings vary according to differences in such product characteristics as size, tolerance levels, material composition of components, and quality of workmanship.[97] Generally,

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[93] An exception was ***, which had a ***-percent share of the value of reported domestic shipments of ball bearings and parts thereof in 1987, as reported to the Commission in the 1988-89 antifriction bearings investigations. Other than this firm, all of the firms providing data on shipments of ball bearings and parts in the previous investigations also provided data in these investigations.

[94] Based on U.S. Census Bureau, Current Industrial Reports: Antifriction Bearings 1989: September 1990, exclusive of data on shipments of unground bearings. Census data on 1990 shipments of ball bearings are not yet available.

[95] Data on market penetration based on official import data are presented in app. J.

[96] Twenty-two U.S. producers and 24 U.S. importers of ball bearings responded in their questionnaires to at least some of the questions on market characteristics, with some firms providing more information than others. Conference testimony and Commission staff field-trip interviews also provided information on market characteristics.

[97] Both U.S. producers and importers reported pricing their ball bearings in dollars per bearing.

Table 28
Ball bearings and parts thereof: U.S. producers' shipments, U.S. shipments of imports from subject countries and all other sources, and apparent consumption, 1988-90

Item	1988	1989	1990
	Value (1,000 dollars)		
U.S. producers' shipments....	1,223,436	1,321,529	1,390,925
U.S. shipments of imports:			
Argentina.....	***	***	***
Austria.....	2,324	4,501	6,353
Brazil.....	***	***	***
Canada.....	25,755	29,039	26,286
China.....	3,618	5,656	***
Hong Kong.....	***	***	***
Hungary.....	***	***	***
Korea.....	***	***	***
Mexico.....	***	***	11,049
Poland.....	***	***	***
Spain.....	***	***	***
Taiwan.....	***	***	***
Turkey.....	0	423	1,082
Yugoslavia.....	***	***	***
Subtotal.....	46,130	102,381	105,939
Other sources.....	388,647	452,125	433,176
Total.....	434,777	554,506	539,115
Apparent consumption.....	1,658,213	1,876,035	1,930,040
	As a share of the value of apparent U.S. consumption (percent)		
U.S. producers' shipments....	73.8	70.4	72.1
U.S. shipments of--			
Argentina.....	***	***	***
Austria.....	.1	.2	.3
Brazil.....	***	***	***
Canada.....	1.6	1.5	1.4
China.....	.2	.3	***
Hong Kong.....	***	***	***
Hungary.....	***	***	***
Korea.....	***	***	***
Mexico.....	***	***	.6
Poland.....	***	***	***
Spain.....	***	***	***
Taiwan.....	***	***	***
Turkey.....	0	(1)	.1
Yugoslavia.....	***	***	***
Subtotal.....	2.8	5.5	5.5
Other sources.....	23.4	24.1	22.4
Total.....	26.2	29.6	27.9
Apparent consumption.....	100.0	100.0	100.0

[1] Less than 0.05 percent.

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.

domestic and imported ball bearings that meet a set of standard industry specifications can be substituted in a given use, but some asserted quality differences may limit this substitution somewhat.

U.S. producers and importers usually sell their ball bearings to distributors and to some small-volume original equipment manufacturers (OEMs) from price lists,[98] and sell to large-volume OEMs on a negotiated price basis. Prices of ball bearings sold to large-volume OEMs typically carry a lower price than ball bearings sold to distributors and smaller OEMs. Large-volume production runs enable the capital-intensive bearing producers to achieve significantly lower unit production costs for the ball bearings produced by the firm. These lower unit costs allow, in turn, higher selling margins and/or lower selling prices to the large OEMs.

Distributors buy ball bearings mostly on a spot sales basis and OEMs buy ball bearings on both a contract and spot sales basis. U.S. producers' and importers' spot sales are made from price lists and contract sales are based on negotiated prices.[99] Typical contracts run for 1 year with the price usually fixed for the 12 months and shipment quantities and dates specified in the contract. Some responding U.S. producers and importers noted that price, shipment quantities, and shipping dates were sometimes adjusted during the contract period.

U.S. producers and importers of ball bearings quote selling prices f.o.b. their U.S. plants and/or warehouses on sales to distributors and OEMs, but sometimes also quote delivered prices to distributors. Some ball bearing suppliers reported prepaying freight on distributor orders of a specified minimum size, ranging from at least $2,000 to $3,000 per order. The importance of freight costs varies depending on the size of the ball bearings purchased, the quantity ordered, and the distance shipped. Additional discussion of U.S. freight costs appears later in the report in the transportation factors section.

Most U.S. producers reported offering technical assistance in selling their ball bearings, whereas ball bearing importers generally reported that they did not offer technical assistance. Technical assistance includes application and failure analysis, life and load calculations, bearing selection, and training. The 12 U.S. producers reporting the cost of their technical assistance related to ball bearing sales showed that the combined total value increased annually from $17.7 million in 1988 to $21.2 million in

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[98] U.S. producers and importers indicated in their questionnaire responses that price lists provide a standard price schedule that clearly delineates the various classes of trade. These firms, including the petitioner, reported that they were generally able to adhere to their price lists during 1988-90. Volume discounts were typically included in list-price schedules, but the volume categories were far less than the large-volume orders of some OEMs where prices were negotiated.

[99] Payment terms of net 30 days were most frequently reported for distributors and OEMs, but terms of 1-2 percent, 10 days, net 30 were also reported for distributors.

1990.[100] The two responding importers who reported offering some technical assistance did not provide the value of their technical assistance expenditures.

Questionnaire price data.--The products for which pricing data were requested are described below.[101]

PRODUCT 1: RADIAL BALL BEARINGS--Generic Part No. 6203ZZ (FAFNIR No. 203KDD). **Weight**: 0.14 pounds. **Bearing description**: Ball bearing, single row, deep groove radial. **Bearing specification**: 17mm bore, 40mm OD, 12mm width with two shields. ABEC 1 tolerances.

PRODUCT 2: RADIAL BALL BEARINGS--Generic Part No. 62032RS (FAFNIR No. 203PP). **Weight**: 0.14 pounds. **Bearing description**: Ball bearing, single row, deep groove radial. **Bearing specification**: 17mm bore, 40mm OD, 12mm width with two seals. ABEC 1 tolerances.

PRODUCT 3: RADIAL BALL BEARINGS--Generic Part No. 6203 (FAFNIR No. 203K). **Weight**: 0.14 pounds. **Bearing description**: Ball bearing, single row, deep groove radial. **Bearing specification**: 17mm bore, 40mm OD, 12mm width. ABEC 1 tolerances.

PRODUCT 4: RADIAL BALL BEARINGS--Generic Part No. DG19452RS (FAFNIR No. 204RR6). **Weight**: 0.26 pounds. **Bearing description**: Ball bearing, single row, deep groove radial. **Bearing specification**: 0.7505-inch bore, 1.7805-inch OD, 0.610-inch width with two seals. ABEC 1 tolerances.

PRODUCT 5: WIDE INNER-RING BALL BEARINGS--Generic Part No. RA100-RRB (FAFNIR No. RA100RRB+COLLAR). **Weight**: 0.41 pounds. **Bearing description**: Ball bearing, single row, deep groove radial with eccentric locking collar, narrow overall width. **Bearing specification**: 1-inch bore, 52mm spherical OD, 1-7/32 inch overall width with two seals. ABEC 1 tolerances.

PRODUCT 6: MOUNTED BALL BEARINGS--Generic Part No. SYH1FM (FAFNIR No. VAK 1"). **Weight**: 1.67 pounds. **Part description**: Housed unit consisting of pillow block housing and ball bearing, spherical outside diameter, extended inner ring width, and eccentric locking collar. **Housing specification**: Cast iron, 1.3125-inch base-to-base center height, 1-inch bearing bore, and 4.125-inch bolt-hole spacing. **Bearing specification**: 1-inch bore, 52mm OD, 31mm inner ring width includes collar, 15mm outer ring width with two seals. ABEC 1 tolerances.

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[100] U.S. producers reported that the cost of technical assistance is recovered through their selling prices for the full range of ball bearings they offer. The reported assistance by U.S. producers averaged less than 0.2 percent of their total annual sales of ball bearings.

[101] The products were suggested by the petitioner as representative of a significant share of U.S.-produced and subject imported ball bearings. Conversations with Torrington officials, Feb. 12-14, 1991.

U.S. producers and importers.--The Commission requested net U.S. f.o.b. selling prices of ball bearings to both OEMs and distributors. The price data were requested for the largest sale and for total sales of the specified products, by quarters, during January 1988-December 1990.

Nine U.S. producers and ten U.S. importers of ball bearings[102] provided price data, but not necessarily for every product or period. The total sales value of the U.S.-produced ball bearings for which pricing data were reported accounted for *** percent of reported domestic shipments of all U.S.-produced ball bearings during January 1988-December 1990. During this period, the total sales value of the subject imported ball bearings for which pricing data were reported accounted for *** percent of ball bearings imported from Argentina, *** percent of ball bearings imported from Brazil, *** percent of ball bearings imported from Canada, *** percent of ball bearings imported from China, *** percent of ball bearings imported from Hong Kong, *** percent of ball bearings imported from Hungary, *** percent of ball bearings imported from Korea, *** percent of ball bearings imported from Mexico, *** percent of ball bearings imported from Poland, *** percent of ball bearings imported from Spain, *** percent of ball bearings imported from Taiwan, *** percent of ball bearings imported from Turkey, and *** percent of ball bearings imported from Yugoslavia. No price data were reported for ball bearings imported from Austria.

Price trends.--Price trends of U.S.-produced ball bearings and ball bearings imported from the subject countries were based on the net U.S. f.o.b. selling prices to OEMs and distributors reported in questionnaire responses. Weighted-average prices of the specified domestic and imported ball bearing products are shown in table 29 for sales to OEMs and table 30 for sales to distributors. Indexes of these prices are shown in appendix tables K-1 and K-2 based on sales to OEMs and distributors, respectively. Based on the value of sales for which the U.S. producers and importers' price data were reported, OEMs accounted for about 80 percent of the total, and distributors, 20 percent. As shown in both the text and appendix tables, prices of the domestic and imported products sometimes fluctuate significantly between quarters. Officials at Torrington indicated that sharp movements in their reported prices reflected the firm's efforts to adjust to changing market conditions, especially the imposition of antidumping duties in 1989.[103]

Quarterly prices of the U.S.-produced ball bearing products generally rose substantially during 1988-89 and then tended to fall somewhat in 1990, although prices still showed significant increases during the entire 3-year period.[104] U.S. producers' price increases ranged from 23 percent to 140 percent on sales to OEMs for five of the six specified products, and from

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[102] The responding 10 U.S. importers included 4 firms that also produce ball bearings in the United States; 3 of these 4 firms also reported pricing data for their U.S.-produced ball bearings.

[103] Telephone conversation with Commission staff, Mar. 5, 1991.

[104] The lone exception to the rising price trends involved prices of U.S.-produced ball bearing product 2 sold to OEMs, which fluctuated but fell by about 8 percent during January 1988-December 1990.

Table 29
Net U.S. f.o.b. selling prices of ball bearings produced in the United States and imported from the subject foreign countries and sold to OEMs and the total-period quantities sold, by specified product, by country of origin, and for the price data by quarter, January 1988-December 1990

* * * * * * *

Table 30
Net U.S. f.o.b. selling prices of ball bearings produced in the United States and imported from the subject foreign countries and sold to DISTRIBUTORS and the total-period quantities sold, by specified product, by country of origin, and for the price data by quarter, January 1988-December 1990

* * * * * * *

27 percent to 97 percent on sales to distributors for all six products. Price trends of the subject imported ball bearings differed by country of origin and were based on fewer products and periods than price trends of the U.S.-produced ball bearings. Except for Spain, price trends of the subject imported ball bearings very generally either rose or fell. Prices of the imported Spanish ball bearings generally fell on sales to OEMs but rose on sales to distributors. Selling prices typically increased for most of the ball bearing products imported from Canada, Hungary, Korea, Mexico, and Taiwan, while selling prices generally decreased for the products imported from Argentina, China, Hong Kong, Turkey, and Yugoslavia during the periods reported. Price trends of ball bearings from Poland were mixed and prices of ball bearings from Brazil did not change during the few periods reported.

Price comparisons.--Quarterly price comparisons of U.S.-produced and imported ball bearings sold to OEMs and distributors were developed from the U.S. producers' and importers' questionnaire responses, and are based on the reported net U.S. f.o.b. selling prices. The quarterly price comparisons, based on the weighted-average prices presented earlier, are shown in appendix table L-1 for sales to OEMs and table L-2 for sales to distributors. A summary of the quarterly price comparisons by country is shown in table 31.

Overall, 478 quarterly price comparisons were possible between the U.S.-produced ball bearing products and those imported from 13 of the 14 subject foreign countries during January 1988-December 1990; there were no reported prices of ball bearings from Austria. The number of price comparisons were evenly split between sales to OEMs and to distributors (239 price comparisons

Table 31
Summary of quarterly margins of under/(over) selling[1] between U.S.-produced and imported ball bearings, by type of customer, by foreign country, during 1988-90[2]

Country	Total no. of quarterly price comparisons	Sales to OEMs					Sales to distributors				
		Number of price comparisons	Price underselling		Price overselling ( )		Number of price comparisons	Price underselling		Price overselling ( )	
			Number	Margin	Number	Margin		Number	Margin	Number	Margin
				Percent		Percent			Percent		Percent
Argentina	16	16	1	38	15	(44)	-	-	-	-	-
Brazil	5	5	-	-	5	(19)	-	-	-	-	-
Canada	72	36	11	5	25	(23)	36	28	18	8	(16)
China	60	29	5	7	24	(27)	31	25	49	6	(20)
Hong Kong	34	18	14	11	4	(37)	16	16	59	-	-
Hungary	15	5	-	-	5	(15)	10	10	58	-	-
Korea	28	4	4	13	-	-	24	24	33	-	-
Mexico	46	22	10	28	12	(30)	24	11	11	13	(21)
Poland	7	2	-	-	2	(10)	5	5	64	-	-
Spain	68	39	10	15	29	(60)	29	21	20	8	(10)
Taiwan	84	43	13	17	30	(20)	41	27	32	14	(42)
Turkey	16	8	7	15	1	(12)	8	8	64	-	-
Yugoslavia	27	12	9	15	3	(14)	15	15	58	-	-
Total	478	239	84	15	155	(32)	239	190	38	49	(24)

[1] Figures in parentheses indicate that the price of the domestic product was less than the price of the imported product. Price differences between the U.S. and imported products were calculated as ratios of the U.S. producers' weighted-average price.
[2] Margins of under/(over) selling shown above were aggregated from the quarterly margins detailed by product and country and shown in appendix tables L-1 and L-2.

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

for each category of customer).[105] Of the total 478 price comparisons, 274 showed underselling by the imported products, and 204 showed the imported products to be priced higher than the domestic products.

Argentina.--All 16 quarterly price comparisons between the U.S.-produced and imported Argentine ball bearings were restricted to sales to OEMs. One of the price comparisons showed the imported products to be priced less than the domestic products by a margin of 38 percent. Fifteen price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 44 percent.

Brazil.--All five quarterly price comparisons between the U.S.-produced and imported Brazilian ball bearings were based on sales to OEMs. The five price comparisons showed the imported products to be priced higher than the domestic bearings by an average margin of 19 percent.

Canada.--Seventy-two quarterly price comparisons were possible between the U.S.-produced and imported Canadian ball bearings; 36 price comparisons involved sales to OEMs and 36 price comparisons involved sales to distributors.[106] Of the total 72 price comparisons, 39 showed the imported products to be priced less than the domestic products by an average margin of 14 percent. Thirty-three price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 21 percent.

China.--Sixty quarterly price comparisons were possible between the U.S.-produced and imported Chinese ball bearings; 29 price comparisons involved sales to OEMs and 31 price comparisons involved sales to distributors.[107] Of the total 60 price comparisons, 30 showed the imported

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[105] Sales to distributors accounted for a greater degree of underselling by the imported products than sales to OEMs. Sales to distributors involved 190 instances of underselling, with an average margin of 38 percent, whereas sales to OEMs involved 84 instances of underselling, with an average margin of 15 percent. Although OEMs accounted for the majority of total sales for which pricing data were reported, 4 of the subject foreign countries, China, Hungary, Poland, and Korea, reported a majority of their sales to distributors.

[106] Of the 36 price comparisons involving sales to OEMs, 11 showed underselling, by an average margin of 5 percent; 25 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 23 percent. Of the 36 price comparisons involving sales to distributors, 28 showed underselling, by an average margin of 18 percent; 8 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 16 percent.

[107] Of the 29 price comparisons involving sales to OEMs, 5 showed underselling, by an average margin of 7 percent; 24 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 27 percent. Of the 31 price comparisons involving sales to distributors, 25 showed underselling, by an average margin of 49 percent;

(continued...)

products to be priced less than the domestic products by an average margin of 42 percent. Thirty price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 25 percent.

Hong Kong.--Thirty-four quarterly price comparisons were possible between the U.S.-produced and imported Hong Kong ball bearings; 18 price comparisons involved sales to OEMs and 16 price comparisons involved sales to distributors.[108] Of the total 34 price comparisons, 30 showed the imported products to be priced less than the domestic products by an average margin of 36 percent. Four price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 37 percent.

Hungary.--Fifteen quarterly price comparisons were possible between the U.S.-produced and imported Hungarian ball bearings; 5 price comparisons involved sales to OEMs and 10 price comparisons involved sales to distributors.[109] Of the total 15 price comparisons, 10 showed the imported products to be priced less than the domestic products by an average margin of 58 percent. Five price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 15 percent.

Korea.--Twenty-eight quarterly price comparisons were possible between the U.S.-produced and imported Korean ball bearings; 4 price comparisons involved sales to OEMs and 24 price comparisons involved sales to distributors.[110] All 28 price comparisons showed the imported products to be priced less than the domestic products, by an average margin of 55 percent.

Mexico.--Forty-six quarterly price comparisons were possible between the U.S.-produced and imported Mexican ball bearings; 22 price comparisons involved sales to OEMs and 24 price comparisons involved sales to distributors.[111] Of the total 46 price comparisons, 21 showed the imported

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[107](...continued)
6 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 20 percent.

[108] Of the 18 price comparisons involving sales to OEMs, 14 showed underselling, by an average margin of 11 percent; 4 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 37 percent. All 16 price comparisons involving sales to distributors showed underselling, by an average margin of 59 percent.

[109] All five price comparisons involving sales to OEMs showed overselling, by an average margin of 15 percent. All 10 price comparisons involving sales to distributors also showed underselling, by an average margin of 58 percent.

[110] All four price comparisons involving sales to OEMs showed underselling, by an average margin of 13 percent. All 24 price comparisons involving sales to distributors also showed underselling, by an average margin of 33 percent.

[111] Of the 22 price comparisons involving sales to OEMs, 10 showed underselling, by an average margin of 28 percent; 12 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 30 percent. Of the 24 price comparisons involving sales

(continued...)

products to be priced less than the domestic products by an average margin of 19 percent. Twenty-five price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 25 percent.

Poland.--Seven quarterly price comparisons were possible between the U.S.-produced and imported Polish ball bearings; two price comparisons involved sales to OEMs and five price comparisons involved sales to distributors. Both price comparisons involving sales to OEMs showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 10 percent. The other five price comparisons showed the imported ball bearings to be priced less than the domestic bearings by an average margin of 64 percent.

Spain.--Sixty-eight quarterly price comparisons were possible between the U.S.-produced and imported Spanish ball bearings; 39 price comparisons involved sales to OEMs and 29 price comparisons involved sales to distributors.[112] Of the total 68 price comparisons, 31 showed the imported products to be priced less than the domestic products by an average margin of 18 percent. Thirty-seven price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 49 percent.

Taiwan.--Eighty-four quarterly price comparisons were possible between the U.S.-produced and imported Taiwan ball bearings; 43 price comparisons involved sales to OEMs and 41 price comparisons involved sales to distributors.[113] Of the total 84 price comparisons, 40 showed the imported products to be priced less than the domestic products by an average margin of 27 percent. Forty-four price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 27 percent.

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[111](...continued)
to distributors, 11 showed underselling, by an average margin of 11 percent; 13 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 21 percent.

[112] Of the 39 price comparisons involving sales to OEMs, 10 showed underselling, by an average margin of 15 percent; 29 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 60 percent. Of the 29 price comparisons involving sales to distributors, 21 showed underselling, by an average margin of 20 percent; 8 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 10 percent.

[113] Of the 43 price comparisons involving sales to OEMs, 13 showed underselling, by an average margin of 17 percent; 30 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 20 percent. Of the 41 price comparisons involving sales to distributors, 27 showed underselling, by an average margin of 32 percent, 14 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 42 percent.

Turkey.--Sixteen quarterly price comparisons were possible between the U.S.-produced and imported Turkish ball bearings; eight price comparisons involved sales to OEMs and eight price comparisons involved sales to distributors.[114] Of the total 16 price comparisons, 15 showed the imported products to be priced less than the domestic products by an average margin of 41 percent. One price comparison showed the imported ball bearings to be priced higher than the domestic bearings by a margin of 12 percent.

Yugoslavia.--Twenty-seven quarterly price comparisons were possible between the U.S.-produced and imported Yugoslav ball bearings; 12 price comparisons involved sales to OEMs and 15 price comparisons involved sales to distributors.[115] Of the total 27 price comparisons, 24 showed the imported products to be priced less than the domestic products by an average margin of 42 percent. Three price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 14 percent.

Transportation factors

Twenty-two U.S. producers and twenty-four U.S. importers responded to at least some of the questions on transportation factors in the questionnaires. Both producers and importers reported selling ball bearings throughout the United States, shipping from their U.S. manufacturing locations or ports of entry and from U.S. warehouses located in about 20 states. Producers' and importers' warehouses were most frequently located in California, Georgia, Illinois, and Texas. Most of the U.S.-produced and imported ball bearings are shipped by truck in the U.S. market.

In comparison with the responding producers, the importers generally reported selling a higher proportion of their imported ball bearings to customers located less than 500 miles from their U.S. selling locations. Producers and importers reported that purchasers generally did not consider U.S.-inland freight a significant factor when sourcing ball bearings. Based on the 15 firms that reported freight costs, U.S.-inland transportation costs ranged from *** to *** percent of U.S. f.o.b. selling prices, varying by the distance shipped.

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[114] Of the eight price comparisons involving sales to OEMs, 7 showed underselling, by an average margin of 15 percent; 1 price comparison showed the imported ball bearings to be priced higher than the domestic bearings by a margin of 12 percent. All eight price comparisons involving sales to distributors showed underselling, by an average margin of 64 percent.

[115] Of the 12 price comparisons involving sales to OEMs, 9 showed underselling, by an average margin of 15 percent; 3 price comparisons showed the imported ball bearings to be priced higher than the domestic bearings by an average margin of 14 percent. All 15 price comparisons involving sales to distributors showed underselling, by an average margin of 58 percent.

Exchange rates

Quarterly data reported by the International Monetary Fund for 11 of the 14 foreign countries[116] subject to these investigations indicate that values of the reported currencies generally appreciated in real terms relative to the U.S. dollar during January 1988-December 1990,[117] or, for some countries, from January 1988 through the most recent quarter for which data were available. Exchange rate changes for the 11 countries are shown in table 32 and discussed below.

Argentina.--The nominal value of the Argentine austral depreciated relative to the U.S. dollar by almost 100 percent during January 1988-March 1990. High inflation in Argentina during this period, of about 36,418 percent compared with about 9-percent inflation in the United States, resulted in less depreciation of the austral against the U.S. dollar in real terms. In real terms the austral depreciated against the U.S. dollar by about 74 percent.

Austria.--The nominal value of the Austrian schilling appreciated relative to the U.S. dollar by almost 12 percent during January 1988-December 1990. Approximately 7-percent inflation in Austria compared with about 14-percent inflation in the United States during this period resulted in less appreciation of the Austrian schilling in real terms compared with nominal terms. In real terms, the Austrian schilling appreciated against the U.S. dollar during the period by 4 percent, or eight percentage points less than the appreciation in nominal terms.

Brazil.--The nominal value of the Brazilian new cruzado depreciated relative to the U.S. dollar by almost 100 percent during January 1988-June 1990, but extremely high inflation in Brazil during this period, about 90,343 percent compared with about 9-percent inflation in the United States, resulted in a 45-percent real appreciation of the new cruzado against the U.S. dollar.

Canada.--The nominal value of the Canadian dollar appreciated relative to the U.S. dollar by about 8 percent during January 1988-June 1990. Approximately 5-percent inflation in Canada compared with about 9-percent inflation in the United States during this period resulted in somewhat less appreciation of the Canadian dollar in real terms compared with nominal terms. In real terms, the Canadian dollar appreciated against the U.S. dollar during the period by 4 percent, or four percentage points less than the appreciation in nominal terms.

Hong Kong.--The nominal value of the Hong Kong dollar remained about equal in value to the U.S. dollar during January 1988-December 1990. Approximately 28-percent inflation in Hong Kong compared with about

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[116] Usable market exchange-rate data for the Hungarian forint, the Chinese renminbi, and the Polish zloty are not available. Governments of these three countries limit convertibility of their respective currencies with other currencies.

[117] International Financial Statistics, February 1991.

Table 32
Exchange rates:[1] Indexes of the nominal and real exchange rates between the U.S. dollar and currencies of 11 specified countries, and indexes of producer prices in the foreign countries and the United States,[2] by quarters, January 1988-December 1990

Period	Argentina			Austria			
	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	U.S. producer price index
1988:							
Jan.-Mar...	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Apr.-June..	64.4	167.8	106.4	98.1	100.4	97.0	101.6
July-Sept..	39.2	317.4	120.6	89.7	99.7	86.8	103.1
Oct.-Dec...	34.6	392.4	131.2	94.3	99.9	91.0	103.5
1989:							
Jan.-Mar...	31.3	495.4	146.5	90.6	101.1	86.5	105.8
Apr.-June..	3.3	2,338.5	71.5	86.6	102.1	82.0	107.7
July-Sept..	0.7	14,108.5	92.4	87.0	101.5	82.3	107.3
Oct.-Dec...	0.5	17,588.6	77.5	92.3	102.5	87.8	107.7
1990:							
Jan.-Mar...	0.1	36,518.4	25.7	99.0	104.0	94.2	109.3
Apr.-June..	0.1	([4])	([4])	99.8	104.8	95.8	109.1
July-Sept..	0.1	([4])	([4])	105.1	103.9	98.3	111.0
Oct.-Dec...	0.1	([4])	([4])	111.6	106.7	104.1	114.4

	Brazil			Canada			
	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	U.S. producer price index
1988:							
Jan.-Mar...	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Apr.-June..	60.6	172.5	102.8	103.1	101.2	102.7	101.6
July-Sept..	34.1	318.1	105.0	103.9	102.3	103.1	103.1
Oct.-Dec...	17.1	651.1	107.6	105.1	103.1	104.6	103.5
1989:							
Jan.-Mar...	9.5	1,217.8	109.2	106.3	104.1	104.6	105.8
Apr.-June..	8.0	1,572.1	116.6	106.2	104.3	102.8	107.7
July-Sept..	3.6	3,697.5	124.1	107.2	105.2	105.1	107.3
Oct.-Dec...	1.4	10,698.8	136.9	108.5	104.2	104.9	107.7
1990:							
Jan.-Mar...	0.4	51,161.6	170.4	107.2	104.6	102.6	109.3
Apr.-June..	0.2	90,443.5	145.2	108.3	104.8	104.1	109.1
July-Sept..	0.1	([4])	([4])	109.9	([4])	([4])	111.0
Oct.-Dec...	0.1	([4])	([4])	109.2	([4])	([4])	114.4

See footnotes at end of table.

Table 32--Continued
Exchange rates:[1] Indexes of the nominal and real exchange rates between the U.S. dollar and currencies of 11 specified countries, and indexes of producer prices in the foreign countries and the United States,[2] by quarters, January 1988-December 1990

Period	Hong Kong			Korea			
	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	U.S. producer price index
1988:							
Jan.-Mar...	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Apr.-June..	99.8	102.5	100.7	104.9	100.1	103.3	101.6
July-Sept..	99.8	104.5	101.3	106.7	100.9	104.5	103.1
Oct.-Dec...	99.8	106.3	102.5	110.9	100.9	108.0	103.5
1989:							
Jan.-Mar...	99.9	109.5	103.4	113.9	101.3	109.0	105.8
Apr.-June..	100.2	112.7	104.8	115.7	102.1	109.7	107.7
July-Sept..	99.9	114.9	107.0	115.4	102.0	109.7	107.3
Oct.-Dec...	99.8	116.6	108.1	114.6	102.5	109.1	107.7
1990:							
Jan.-Mar...	99.8	119.4	109.1	111.7	103.1	105.4	109.3
Apr.-June..	100.1	123.1	113.0	108.6	105.3	104.9	109.1
July-Sept..	100.3	126.0	113.8	107.8	106.8	103.7	111.0
Oct.-Dec...	100.1	128.2	112.2	107.9	109.6	103.4	114.4

	Mexico			Spain			
	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	U.S. producer price index
1988:							
Jan.-Mar...	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Apr.-June..	98.6	107.9	104.7	100.1	100.8	99.3	101.6
July-Sept..	98.6	111.9	107.1	91.5	101.6	90.3	103.1
Oct.-Dec...	98.6	114.0	108.6	97.2	102.5	96.3	103.5
1989:							
Jan.-Mar...	96.8	120.3	110.0	97.9	104.3	96.5	105.8
Apr.-June..	93.1	124.2	107.4	93.0	105.0	90.7	107.7
July-Sept..	89.7	127.1	106.3	93.8	106.1	92.7	107.3
Oct.-Dec...	86.5	131.9	106.0	97.7	106.5	96.6	107.7
1990:							
Jan.-Mar...	83.6	141.8	108.5	103.6	107.2	101.7	109.3
Apr.-June..	80.9	151.1	112.2	107.7	107.2	105.9	109.1
July-Sept..	78.7	159.9	113.4	114.6	107.6	111.1	111.0
Oct.-Dec...	77.1	164.2	110.7	119.1	109.1	113.6	114.4

See footnotes at end of table.

Table 32--Continued
Exchange rates:[1] Indexes of the nominal and real exchange rates between the U.S. dollar and currencies of 11 specified countries, and indexes of producer prices in the foreign countries and the United States,[2] by quarters, January 1988-December 1990

Period	Taiwan			Turkey			U.S. producer price index
	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	
1988:							
Jan.-Mar...	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Apr.-June..	99.9	101.3	99.6	88.2	114.3	99.2	101.6
July-Sept..	99.6	102.7	99.2	76.2	123.6	91.3	103.1
Oct.-Dec...	100.9	102.6	99.9	65.6	142.5	90.2	103.5
1989:							
Jan.-Mar...	103.5	102.8	100.5	59.8	167.2	94.5	105.8
Apr.-June..	108.9	102.4	103.6	55.0	188.8	91.6	107.7
July-Sept..	111.2	100.5	104.2	52.2	216.2	100.2	107.3
Oct.-Dec...	110.2	99.6	101.9	49.7	242.2	111.8	107.7
1990:							
Jan.-Mar...	109.3	98.8	98.8	47.9	279.5	122.5	109.3
Apr.-June..	106.3	99.6	97.2	44.7	306.2	125.4	109.1
July-Sept..	105.0	101.5	96.0	42.6	326.4	125.1	111.0
Oct.-Dec...	104.9	103.1	94.5	41.5	(4)	(4)	114.4

	Yugoslavia						
	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	Nominal exchange-rate index	Producer price index	Real exchange-rate index[3]	U.S. producer price index
1988:							
Jan.-Mar...	100.0	100.0	100.0	-	-	-	100.0
Apr.-June..	77.3	121.4	92.4	-	-	-	101.6
July-Sept..	46.7	191.2	86.5	-	-	-	103.1
Oct.-Dec...	32.1	301.8	93.4	-	-	-	103.5
1989:							
Jan.-Mar...	20.2	513.2	97.9	-	-	-	105.8
Apr.-June..	10.6	1,006.1	99.3	-	-	-	107.7
July-Sept..	5.2	2,200.2	106.0	-	-	-	107.3
Oct.-Dec...	1.9	6,327.0	112.0	-	-	-	107.7
1990:							
Jan.-Mar...	1.1	12,477.1	128.8	-	-	-	109.3
Apr.-June..	1.1	12,886.7	134.4	-	-	-	109.1
July-Sept..	1.2	13,222.5	142.6	-	-	-	111.0
Oct.-Dec...	1.3	14,766.1	163.7	-	-	-	114.4

See footnotes at end of table.

Table 32--Continued
Exchange rates:[1] Indexes of the nominal and real exchange rates between the U.S. dollar and currencies of 11 specified countries, and indexes of producer prices in the foreign countries and the United States,[2] by quarters, January 1988-December 1990

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[1] Based on exchange rates expressed in U.S. dollars per unit of foreign currency.

[2] The producer price indexes are aggregate measures of inflation at the wholesale level in the United States and the above foreign countries. As a result, these indexes only approximate actual price changes of ball bearings in the United States and the subject foreign countries. Quarterly producer prices in the United States fluctuated but rose by 14.4 percent during January 1988-December 1990. Producer prices in Austria, Korea, Spain, and Taiwan increased more slowly during this period, by 6.7, 9.6, 9.1, and 3.1 percent, respectively. Prices in Canada rose by 4.8 percent through April-June 1990, the most recent period for which data were available. Producer prices in Hong Kong and Mexico rose by 28.2 and 64.2 percent, respectively, during 1988-90. On the other hand, producer prices in Argentina, Brazil, Turkey, and Yugoslavia increased rapidly during the periods for which data were available, or by 36,418.4, 90,343.5, 226.4, and 14,666.1 percent, respectively.

[3] The real values of the foreign currencies are the nominal values adjusted for the difference between inflation rates as measured by the producer price indexes in the individual foreign countries and the United States.

[4] Data not available.

Note.--January-March 1988=100.0

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

14-percent inflation in the United States during this period resulted in appreciation of the Hong Kong dollar against the U.S. dollar in real terms. In real terms, the Hong Kong dollar appreciated against the U.S. dollar during the period by 12 percent.

Korea.--The nominal value of the Korean won appreciated relative to the U.S. dollar by almost 8 percent during January 1988-December 1990. Approximately 10-percent inflation in Korea compared with about 14-percent inflation in the United States during this period resulted in somewhat less appreciation of the Korean won in real terms compared with nominal terms. In real terms, the Korean won appreciated against the U.S. dollar by about 3 percent, or five percentage points less than the appreciation in nominal terms.

Mexico.--The nominal value of the Mexican peso depreciated relative to the U.S. dollar by 23 percent during January 1988-December 1990. About 64-percent inflation in Mexico compared with about 14-percent inflation in the United States during this period resulted in appreciation of the Mexican peso in real terms compared with depreciation in nominal terms. In real terms, the

Mexican peso appreciated against the U.S. dollar during the period by almost 11 percent.

Spain.--The nominal value of the Spanish peseta appreciated relative to the U.S. dollar by about 19 percent during January 1988-December 1990. Approximately 9-percent inflation in Spain compared with about 14-percent inflation in the United States during this period resulted in somewhat less appreciation of the Spanish peseta in real terms compared with nominal terms. In real terms, the Spanish peseta appreciated against the U.S. dollar during January 1988-December 1990 by almost 14 percent, or five percentage points less than the appreciation in nominal terms.

Taiwan.--The nominal value of the New Taiwan dollar appreciated relative to the U.S. dollar by about 5 percent during January 1988-December 1990. Approximately 3-percent inflation in Taiwan compared with about 14-percent inflation in the United States during this period resulted in depreciation of the New Taiwan dollar in real terms compared with appreciation in nominal terms. In real terms, the New Taiwan dollar depreciated against the U.S. dollar during January 1988-December 1990 by about 5 percent.

Turkey.--The nominal value of the Turkish lira depreciated relative to the U.S. dollar by about 57 percent during January 1988-September 1990. Inflation in Turkey during this period of about 226 percent, compared with about 11-percent inflation in the United States, resulted in about 25-percent real appreciation of the Turkish lira against the U.S. dollar.

Yugoslavia.--The nominal value of the Yugoslav dinar depreciated relative to the U.S. dollar by about 99 percent during January 1988-December 1990. Significant inflation in Yugoslavia during this period of about 14,666 percent, compared with 14-percent inflation in the United States, resulted in about 64-percent real appreciation of the Yugoslav dinar against the U.S. dollar.

Lost sales

Five U.S. producers[118] reported lost sales allegations involving competition from ball bearings imported from 13 of the 14 subject foreign countries;[119] there were no lost sales allegations involving ball bearings from Austria. The reported lost sales allegations totaled almost $13.8 million, or

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[118] The five responding U.S. producers were ***.

[119] Four other U.S. ball bearing producers, ***, indicated in their questionnaire responses that they had lost sales of their U.S.-produced ball bearings to the subject imported ball bearings, but they were unable to provide any details. On the other hand, 13 U.S. producers indicated in their questionnaire responses that they had not lost sales of their U.S.-produced ball bearings to the subject imported ball bearings.

about 9.2 million ball bearings, during 1988-90.[120] The Commission staff investigated large-volume allegations for each of the countries cited. Conversations with the cited purchasers that the staff was able to contact are discussed below.

* * * * * * *

Lost revenue

Two U.S. producers[121] reported lost revenue allegations involving competition from ball bearings imported from China, Korea, Taiwan, Turkey, and Yugoslavia;[122] there were no lost revenue allegations involving ball bearings from the remaining 9 subject foreign countries. The reported lost revenue allegations totaled about $850,000, or 533,000 ball bearings, during 1988-90.[123] The Commission staff investigated large-volume allegations for each of the countries cited. Conversations with the cited purchasers that the staff was able to contact are discussed below.

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[120] The value and quantity of alleged lost sales, by the subject countries cited, are shown below.

	Value	Quantity Units
*	*	*

[121] The two responding U.S. producers were ***.

[122] Five U.S. ball bearing producers, ***, indicated in their questionnaire responses that they had to reduce prices of U.S.-produced ball bearings in competition with the subject imported ball bearings, but were unable to provide any details. Thirteen additional U.S. producers indicated in their questionnaire responses that they did not reduce prices of U.S.-produced ball bearings as a result of competition from the subject imported ball bearings.

[123] The value and quantity of lost revenue allegations, by the subject countries cited, are shown below.

	Value Dollars	Quantity Units
*	*	*

APPENDIX A

FEDERAL REGISTER NOTICES

INTERNATIONAL TRADE COMMISSION

[Investigation No. 701-TA-307, and Nos. 731-TA-498 through 511 (Preliminary)]

Ball Bearings, Mounted or Unmounted, and Parts Thereof, from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, the Republic of Korea, Spain, Taiwan, Turkey, and Yugoslavia

AGENCY: United States International Trade Commission.

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

SUMMARY: The Commission hereby gives notice of the institution of preliminary countervailing duty investigation No. 701-TA-307 (Preliminary) under section 703(a) of the Tariff Act of 1930 (19 U.S.C. 1671b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Turkey of ball bearings, mounted or unmounted, and parts thereof,[1] that are alleged to be subsidized by the Government of Turkey.

The Commission also gives notice of the institution of preliminary antidumping investigations Nos. 731-TA-498 through 511 (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 Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, the Republic of Korea, Spain, Taiwan, Turkey, and Yugoslavia of ball bearings, mounted or unmounted, and parts thereof,[1] that are alleged to be sold in the United States at less than fair value.

As provided in sections 703(a) and 733(a), the Commission must complete preliminary countervailing duty and antidumping investigations in 45 days, or in this case by April 1, 1991.

For further information concerning the conduct of these investigations and rules of general application, consult the Commission's Rules of Practice and Procedure, part 207, subparts A and B (19 CFR part 207), and part 201, subparts A through E (19 CFR part 201).

EFFECTIVE DATE: February 13, 1991.

FOR FURTHER INFORMATION CONTACT: Jonathan Seiger (202-252-1177), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-252-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-252-1000.

[1] The imported ball bearings covered by these investigations include all ground antifriction bearings, finished or unfinished, which employ balls as the rolling element, whether or not housed or combined, and are provided for in subheadings 6909.19.50, 8482.10.10, 8482.10.50, 8482.80.00, 8482.91.00, 8482.99.10, 8482.99.70, 8483.20.40, 8483.20.80, 8483.30.40, 8483.30.80, 8483.90.20, 8483.90.30, 8483.90.70, and 8708.99.50 of the Harmonized Tariff Schedule of the United States (HTS) (previously reported under items 680.3025, 680.3030, 680.3300, 680.3400, 680.3704, 680.3708, 680.3712, 680.3717, 680.3718, 680.3722, 680.3727, 680.3728, 680.3820, 680.3830, 680.3960, 680.4170, 681.0410, 681.0430, 681.1010, 681.1030, and 692.3295 of the former Tariff Schedules of the United States Annotated (TSUSA)).

SUPPLEMENTARY INFORMATION:

Background

These investigations are being instituted in response to a petition filed on Febuary 13, 1991 by the Torrington Company, Torrington, CT.

Participation in the Investigations

Persons wishing to participate in the investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than seven (7) days after publication of this notice in the **Federal Register**. Any entry of appearance filed after this date will be referred to the Chairman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

Public Service List

Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), 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. In accordance with §§ 201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), each public document filed by a party to the investigations must be served on all other parties to the investigations (as identified by the public service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

Limited Disclosure of Business Proprietary Information Under a Protective Order and Business Proprietary Information Service List

Pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)), the Secretary will make available business proprietary information gathered in these preliminary investigations to authorized applicants under a protective order, provided that the application be 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 business proprietary information under a protective order. The Secretary will not accept any submission by parties containing business proprietary information without a certificate of service indicating that it has been served on all parties that are authorized

to receive such information under a protective order.

Conference

The Commission's Director of Operations has scheduled a conference in connection with these investigations for 9:30 a.m. on March 6, 1991, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Parties wishing to participate in the conference should contact Jonathan Seiger (202–252–1177) not later than March 4, 1991, to arrange for their appearance. Parties in support of the imposition of countervailing or 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.

Written Submissions

Any person may submit to the Commission on or before March 8, 1991, a written brief containing information and arguments pertinent to the subject matter of the investigations, as provided in § 207.15 of the Commission's rules (19 CFR 207.15). If briefs contain business proprietary information, a nonbusiness proprietary version is due March 11, 1991. A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the rules (19 CFR 201.8). All written submissions except for business proprietary data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any information for which business proprietary treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Business Proprietary Information." Business proprietary submissions and requests for business proprietary treatment must conform with the requirements of §§ 201.6 and 207.7 of the Commission's rules (19 CFR 201.6 and 207.7).

Parties which obtain disclosure of business proprietary information pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)) may comment on such information in their written brief, and may also file additional written comments on such information no later than March 12, 1991. Such additional comments must be limited to comments on business proprietary information received in or after the written briefs. A nonbusiness proprietary version of such additional comments is due March 13, 1991.

Authority. These investigations are being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.12 of the Commission's rules (19 CFR 207.12).

Issued: February 19, 1991.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 91–4301 Filed 2–21–91; 8:45 am]

BILLING CODE 7020–02–M

[A-357-806, A-433-802, A-351-808, A-122-811, A-582-803, A-437-801, A-201-804, A-570-812; A-455-801, A-560-808, A-469-801, A-583-813, A-489-803, A-479-802]

Initiation of Antidumping Duty Investigations: Ball Bearings, Mounted or Unmounted, and Parts Thereof From Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, the Republic of Korea, Spain, Taiwan, Turkey and Yugoslavia

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

ACTION: Notice.

SUMMARY: On the basis of a petition filed in proper form with the U.S. Department of Commerce (the Department), we are initiating antidumping duty investigations to determine whether imports of ball bearings, mounted or unmounted, and parts thereof (ball bearings) from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China (PRC), Poland, the Republic of Korea (ROK), Spain, Taiwan, Turkey and Yugoslavia are being, or are likely to be, sold in the United States at less than fair value. If these investigations proceed normally, the International Trade Commission (ITC) will make its preliminary determinations on or before April 1, 1991. If these determinations are affirmative, we will make our preliminary determinations on or before July 23, 1991.

EFFECTIVE DATE: March 11, 1991.

FOR FURTHER INFORMATION CONTACT: Louis Apple or Steven Lim, 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) 377-1769 or 377-4087, respectively.

SUPPLEMENTARY INFORMATION:

The Petition

On February 13, 1991, we received a petition filed in proper form by The Torrington Company on behalf of the domestic ball bearings industry. Supplements to the petition were received on February 20 and 28, 1991. In compliance with the filing requirements of 19 CFR 353.12, petitioner alleges that ball bearings from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the PRC, Poland, the ROK, Spain, Taiwan, Turkey and Yugoslavia, are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are materially injuring, or threaten material injury to, a U.S. industry.

Petitioner has stated that it has standing to file the petition because it is an interested party, as defined under section 771(9)(E) of the Act, and because it has filed the petition on behalf of the U.S. industry producing the product that is subject to these investigations. If any interested party, as described under paragrpahs (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 all countries subject to these investigations, petitioner's estimate of U.S. price is based on prices obtained by petitioner's own market intelligence, or from U.S. importer price lists. The petitioner made deductions, where appropriate, for importer markups, international movement charges, and customs duties. Petitioner incorrectly calculated the importer's markup by basing it on the gross price, rather than the importer's price, of U.S. prices for ball bearings from Brazil, Hungary, the PRC, Poland and Yugoslavia. Consequently, we recalculated the U.S. price from those countries. In addition, we corrected other mathematical errors in the U.S. price calculations for Brazilian comparisons.

For Argentina, Austria, Brazil, Mexico, ROK, Spain, Taiwan and Turkey, petitioner's estimate of foreign market value (FMV) is based on home market prices obtained from price lists and/or petitioner's market intelligence. Petitioner deducted discounts, distributor markups and commissions, where appropriate, based on its market intelligence. For Mexico, petitioner also made a circumstance of sale adjustment for credit expenses; no adjustment was made for the other countries as the petitioner stated it could not obtain information on credit terms for those countries.

For Hong Kong and Yugoslavia, petitioner's estimate of FMV is based on constructed value (CV), as it could not obtain home market prices for ball bearings from these countries. Petitioner estimated FMV for Canada on a CV basis as well. Petitioner calculated CV based on tis costs for materials and labor, adjusted for estimated differences in each country. Overhead was calculated based on actual costs incurred in Canada for Canadian comparisons, and on costs incurred in Portugal for Hong Kong and Yugoslavian comparisons, as petitioner could not obtain actual overhead costs incurred in those countries. The petitioner also added the actual general expenses for Canada, and the statutory ten percent of material and fabrication costs as general expenses for Hong Kong and Yugoslavia. For all three countries, petitioner added the statutory eight percent of material, fabrication and general expenses for profit. In each case, petitioner added an amount for U.S. packing.

For comparisons involving Canada, we excluded the expense for scrap material in the CV calculation as it was not adequately supported in the petition, and revised the factory overhead and general expenses based on data in the petition. Although petitioner alleged that Canadian home market sales are being made at below the cost of production, we have not initiated a cost investigation because the allegation was not adequately supported in the petition.

For comparisons involving Hong Kong, we recalculated the material cost for retainers as the adjustment in excess of the petitioner's cost was not adequately supproted in the petition. For comparisons involving Yugoslavia, we recalculated certain packing costs that were not adequately supported in the petition.

Petitioner alleges that Hungary, Poland and the PRC are non-market economy countries within the meaning of section 773(c) of the Act. Accordingly, FMV for these countries is a market valuation of the factors of production, based on estimated costs in the "surrogate" market economy countries of Portugal (for Hungary), Mexico (for Poland), and India (for the PRC), in accordance with section 773(c)(1). Petitioner adjusted its unit labor and materials costs to reflect labor and material prices in each surrogate country. Overhead was based on actual costs incurred in Portugal for Hungarian and Polish comparisons, and in India for PRC comparisons. Petitioner used Portuguese overhead costs in the Polish FMV calculation as it could not obtain actual overhead costs incurred in Mexico. The petitioner also added the actual general expenses for the Indian cost in PRC comparisons, and the statutory ten percent of material and fabrication costs as general expenses for Portuguese and Mexican costs in Hungarian and Polish comparisons. For all three countries, petitioner added the statutory eight percent of material, fabrication and general expenses for profit. In each case, petitioner added an amount for U.S. packing.

For comparisons involving Hungary and the PRC, we recalculated the material cost for retainers as the adjustment in excess of the petitioner's cost was not adequately supported in the petition. For comparisons involving Hungary, we recalculated certain packing costs that were not adequately supported in the petition. For comparisons involving Poland, we excluded the expense for scrap material in the FMV calculation as it was not adequately supported in the petition.

Based on the comparisons of the prices presented by the petitioner, and adjusted as described above, the alleged dumping margins for each country are as follows:

Country	Alleged margins
Argentina	14.56 to 22.44 percent.
Austria	11.80 to 42.52 percent.
Brazil	2.70 to 41.45 percent.
Canada	7.22 to 22.20 percent.
Hong Kong	79.31 to 222.41 percent.
Hungary	22.08 to 166.80 percent.
Mexico	36.24 to 66.08 percent.
PRC	12.95 to 284.62 percent.
Poland	53.97 to 172.50 percent.
ROK	7.41 to 149.78 percent.
Spain	5.90 to 36.04 percent.
Taiwan	4.76 to 107.55 percent.
Turkey	10.20 to 329.70 percent.
Yugoslavia	2.70 to 35.22 percent.

Initiation of Investigations

Under section 732(c) of the Act, the Department must determine, within 20 days after a petition is filed, whether the petition sets forth the allegations necessary for the initiation of an antidumping duty investigation, and whether the petition contains information reasonably available to the petitioner supporting the allegations.

We have examined the petition on ball bearings from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the PRC, Poland, the ROK, Spain, Taiwan, Turkey and Yugoslavia and found that the petition meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating antidumping duty investigations to determine whether imports of ball bearings form the above-referenced countries are being, or are likely to be, sold in the United States at less than fair value. If our investigations proceed normally, we will make our preliminary determinations by July 31, 1991.

Scope of Investigation

The products covered in these investigations include all ground antifriction bearings and parts thereof, finished or unfinished, which employ balls as the rolling element, whether or not housed or combined. Imports of these products are classified under the following categories: Antifriction balls and other parts of ball bearings, ball bearings with integral shafts, other ball bearings (including radial ball bearings) and parts thereof, and housed or mounted ball bearing units and parts thereof. Wheel hub units which employ balls as the rolling element are included in these investigations. Finished but unground or semiground balls are not included in the scope of these investigations. Unfinished parts (inner race, outer race, balls, etc.) are included in these investigations if they have been heat treated, or heat treatment is not required to be performed on the part. Unfinished parts which will be subject to heat treatment after importation are not included in these investigations.

Imports of these products are currently classifiable under the following Harmonized Tariff Schedule (HTS) subheadings: 6909.19.50, 8482.10.10, 8482.10.50, 8482.80.00, 8482.91.00, 8482.99.10, 8482.99.70, 8483.20.40, 8483.20.80, 8483.30.40, 8483.30.80, 8483.90.20, 8483.90.30, 8483.90.70, 8708.99.50. The HTS subheadings are provided for convenience and customs purposes. The written description remains dispositive.

ITC Notification

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will allow the ITC access to all privileged and business proprietary information in the Department's files, provided the ITC confirms in writing that it will not disclose such information either publicly or under administrative protective order without the written consent of the Deputy Assistant Secretary for Investigations, Import Administration.

Preliminary Determination by ITC

The ITC will determine by April 1, 1991, whether there is a reasonable indication that imports of ball bearings from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the PRC, Poland, the ROK, Spain, Taiwan, Turkey and Yugoslavia are materially injuring, or threaten material injury to, a U.S. industry. If its determinations are negative, the investigations will be terminated. Otherwise, the Department will make its preliinary determinations on or before July 23, 1991.

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

Dated: March 5, 1991.

Marjorie A. Chorlins,

Acting Assistant Secretary for Import Administration.

[FR Doc. 91-5689 Filed 3-8-91; 8:45 am]

BILLING CODE 3510-DS-M

[C-489-804]

Initiation of Countervailing Duty Investigation: Ball Bearings, Mounted or Unmounted, and Parts Thereof, From Turkey

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

ACTION: Notice.

SUMMARY: On the basis of a petition filed in proper form with the U.S. Department of Commerce, we are initiating a countervailing duty investigation to determine whether manufacturers, producers or exporters in Turkey of ball bearings, mounted or unmounted, and parts thereof ("ball bearings"), as described in the "Scope of Investigation" section of this notice, receive benefits which constitute subsidies within the meaning of the countervailing duty law. We are

notifying the U.S. International Trade Commission (ITC) of this action, so that it may determine whether imports of ball bearings from Turkey are materially injuring, or threaten material injury to, a U.S. industry. If this investigation proceeds normally, we will make our preliminary determination on or before May 9, 1991.

EFFECTIVE DATE: March 11, 1991.

FOR FURTHER INFORMATION CONTACT: Ross Cotjanle or Larry Sullivan, Office of Countervailing Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 377-3534 or (202) 377-0114.

SUPPLEMENTARY INFORMATION:

The Petition

On February 13, 1991, we received a petition in proper form from The Torrington Company, filed on behalf of the U.S. industry producing ball bearings. In compliance with the filing requirements of § 355.12 of the Department's Regulations (19 CFR 355.12) (1990), the petition alleges that manufacturers, producers or exporters of ball bearings in Turkey receive subsidies within the meaning of section 701 of the Tariff Act of 1930, as amended (the Act).

Since Turkey is a "country under the Agreement" within the meaning of section 701(b) of the Act, title VII of the Act applies to this investigation and the ITC is required to determine whether imports of ball bearings from Turkey materially injure, or threaten material injury to, the U.S. industry.

Petitioner stated that it has standing to file the petition because it is an interested party as defined under section 771(9)(C) of the Act and because it has filed the petition on behalf of the U.S. industry producing the product that is subject to this investigation. If any interested party as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act wishes to register support of or opposition to this petition, please file written notification with the Commerce officials cited in the **"FOR FURTHER INFORMATION CONTACT"** section of this notice.

Initiation of Investigation

Under section 702(c) of the Act, we must determine whether to initiate a countervailing duty proceeding within 20 days after a petition is filed. Section 702(b) of the Act requires the Department to initiate a countervailing duty proceeding whenever an interested party files a petition, on behalf of an industry, that (1) alleges the elements necessary for the imposition of a duty under section 701(a), and (2) is accompanied by information reasonably available to the petitioner supporting the allegations. The Department has examined the petition on ball bearings from Turkey and has found that most of the programs alleged in the petition meet these requirements. Therefore, we are initiating a countervailing duty investigation to determine whether Turkish manufacturers, producers or exporters of ball bearings receive subsidies. However, we are not initiating an investigation on one program that did not meet the requirements under section 702(b). If our investigation proceeds normally, we will make our preliminary determination on or before May 9, 1991.

Scope of Investigation

The products covered in this investigation include all ground antifriction bearings and parts thereof, finished or unfinished, which employ balls as the rolling element, whether or not housed or combined. Imports of these products are classified under the following categories: Antifriction balls and other parts of ball bearings, ball bearings with integral shafts, other ball bearings (including radial ball bearings) and parts thereof, and housed or mounted ball bearing units and parts thereof. Wheel hub units which employ balls as the rolling element are included in this investigation. Finished but unground or semiground balls are not included in the scope of this investigation. Unfinished parts (inner race, outer race, balls, etc.) are included in this investigation if they have been heat treated, or heat treatment is not required to be performed on the part. Unfinished parts which will be subject to heat treatment after importation are not included in this investigation.

Imports of these products are currently classifiable under the following Harmonized Tariff Schedule (HTS) subheadings: 8909.19.50, 8482.10.10, 8482.10.50, 8482.80.00, 8482.91.00, 8482.99.10, 8482.99.70, 8483.20.40, 8483.20.80, 8483.30.40, 8483.30.80, 8483.90.20, 8483.90.30, 8483.90.70, 8708.99.50. The HTS subheadings are provided for convenience and customs purposes. The written description remains dispositive.

Allegations of Subsidies

Petitioner lists a number of practices by the Government of Turkey which allegedly confer subsidies on manufacturers, producers or exporters of ball bearings. We are initiating an investigation of the following programs:

- Subvention and Price Stabilization Fund
- Tax Deductions on Export Revenue
- Marketing Premium
- Freight Subsidies
- Energy Subsidies
- Preferential Export Credits
- Stamp Duty Exemption on Export Transactions
- Exemption from Taxes, Duties and Charges on Credits Pursuant to Export Commitment
- Double Deduction of Value-Added Tax (VAT) on Imported Inputs

We are not initiating an investigation on the export insurance program described below because the petitioner did not fulfill the requirements of section 702(b) of the Act.

Export Insurance

Petitioner alleges that because the Eximbank of Turkey provides export financing at preferential rates, it is likely that it also provides export insurance to Turkish exporters at preferential rates. Petitioner neither alleges nor provides, however, specific evidence which would indicate that the premium rates charged by the Turkish Eximbank for export insurance are inadequate to cover the long-term operating costs of the program.

Notification of ITC

Section 702(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all non-privileged and non-proprietary information. We will also allow the ITC access to all privileged and business proprietary information in our files, provided it confirms that it will not disclose such information, either publicly or under administrative protective order, without the written consent of the Deputy Assistant Secretary for Investigations, Import Administration.

Preliminary Determination by ITC

The ITC will determine by April 1, 1991, whether there is a reasonable indication that imports of ball bearings materially injure, or threaten material injury to, a U.S. industry. If its determination is negative, this investigation will terminate; otherwise, this investigation will continue according to the statutory procedures.

This notice is published pursuant to section 702(c)(2) of the Act.

Dated: March 5, 1991.

Marjorie A. Chorlins,

Acting Assistant Secretary for Import Administration.

[FR Doc. 91-5690 Filed 3-8-91; 8:45 am]

BILLING CODE 3510-DS-M

APPENDIX B

LIST OF PARTICIPANTS IN THE PUBLIC CONFERENCE

CALENDAR OF PUBLIC CONFERENCE

Investigation No. 701-TA-307, and Nos. 731-TA-498 through 511 (Preliminary)

BALL BEARINGS, MOUNTED OR UNMOUNTED, AND PARTS THEREOF, FROM ARGENTINA, AUSTRIA, BRAZIL, CANADA, HONG KONG, HUNGARY, MEXICO, THE PEOPLE'S REPUBLIC OF CHINA, POLAND, THE REPUBLIC OF KOREA, SPAIN, TAIWAN, TURKEY, AND YUGOSLAVIA

Those listed below appeared at the United States International Trade Commission's conference that was held in connection with the subject investigations at 9:30 a.m. on March 6, 1991, in ALJ Courtroom A (Room 100) of the USITC Building, 500 E Street, S.W., Washington, DC:

In support of the imposition of antidumping duties

Stewart & Stewart--Counsel
Washington, DC
on behalf of--

The Torrington Company

David D. Gridley, Industry Marketing Manager

Eugene L. Stewart, Esq.--OF COUNSEL

In opposition to the imposition of antidumping duties

Howrey & Simon
Washington, DC
on behalf of

SKF USA, Inc; SKF Argentina S.A.; SKF Steyr Ges.m.b.H; SKF do Brasil Ltda.; SKF Industrias Mexicanas; SKF Espanola, S.A.

Herbert C. Shelley, Esq.--OF COUNSEL

Susan H. Manning, Capital Economics

In opposition to the imposition of antidumping duties--Continued

Barnes, Richardson, & Colburn
Chicago, IL
on behalf of

NTN Bearing Corporation of America (NBCA); American NTN Bearing Manufacturing Corporation; NTN Bearing Corporation of Canada; Tung Pei Industrial Co., Ltd.

William Hayes, President, NBCA

Robert E. Burke, Esq.--OF COUNSEL
James Lundquist, Esq.--OF COUNSEL

Adduci, Mastriani, Meeks & Schill
Washington, DC
on behalf of

FAG Bearings Corporation; FAG Austria Walzlager; Rolamentos FAG Ltda.; FAG Bearings Ltd.; Sammi Precision Industries Co.

Barbara A. Murphy, Esq.--OF COUNSEL

Tom Emrich, Trade Resources Co.

Cooter & Gell
Washington, DC
on behalf of

Peer Bearing Company

Dave Olson, Vice President, International Procurement
Daniel Spungen, Sales Manager

John Gurley, Esq.--OF COUNSEL
Paul Thaler, Esq.--OF COUNSEL

In opposition to the imposition of antidumping duties--Continued

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

Ortadogu Rulman Sanayi Ve Ticaret A.S. ("ORS")

Ahmet Aslan, Board Member, ORS

Bruce M. Mitchell, Esq.--OF COUNSEL
Max F. Schutzman, Esq.--OF COUNSEL
Philip S. Gallas, Esq.--OF COUNSEL
David L. Simon, Esq.--OF COUNSEL

Donovan, Leisure, Rogovin, Huge & Schiller
Washington, DC
on behalf of

Korea Machinery Co., Ltd.
Golden Bell U.S.A. Co., Inc.

Michael P. House, Esq.--OF COUNSEL
Jae Chang Lee, Esq.--OF COUNSEL
Raymond Paretzky, Esq.--OF COUNSEL

Bryan, Cave, McPheeters & McRoberts
Washington, DC
on behalf of

Magyar Gordulocsopagy Muvek ("MGM")

Fabryka Lozysk Toczynch Krasnik ("FLT Krasnik")
Fabryka Lozysk Toczynch Kielce ("FLT Kielce")
Impexmetal

Peter D. Ehrenhaft, Esq.--OF COUNSEL

APPENDIX C

APPARENT U.S. CONSUMPTION OF COMPLETE BALL BEARINGS

Table C-1
Complete ball bearings: U.S. producers' shipments, U.S. shipments of imports, and apparent consumption, 1988-90

Item	1988	1989	1990
	Quantity (1,000 units)		
U.S. producers' shipments....	192,636	197,951	215,338
U.S. shipments of--			
Subject imports[1].....	30,004	54,397	52,240
Non-subject imports.....	268,919	211,987	181,242
Total.....	298,923	266,384	233,482
Apparent consumption.....	491,559	464,335	448,820
	As a share of the quantity of apparent U.S. consumption (percent)		
U.S. producers' shipments....	39.2	42.6	48.0
U.S. shipments of--			
Subject imports[1].....	6.1	11.7	11.6
Non-subject imports.....	54.7	45.7	40.4
Total.....	60.8	57.4	52.0
Apparent consumption.....	100.0	100.0	100.0
	Value (1,000 dollars)		
U.S. producers' shipments....	***	***	***
U.S. shipments of--			
Subject imports[1].....	***	***	***
Non-subject imports.....	***	***	***
Total.....	***	***	***
Apparent consumption.....	1,599,629	1,814,124	1,865,266
	As a share of the value of apparent U.S. consumption (percent)		
U.S. producers' shipments....	***	***	***
U.S. shipments of--			
Subject imports[1].....	***	***	***
Non-subject imports.....	***	***	***
Total.....	***	***	***
Apparent consumption.....	100.0	100.0	100.0

[1] Subject imports are those from Argentina, Austria, Brazil, Canada, China, Hong Kong, Hungary, Korea, Mexico, Poland, Spain, Taiwan, Turkey, and Yugoslavia.

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

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

APPENDIX D

PUBLIC TRADE AND EMPLOYMENT DATA ON BALL BEARINGS AND PARTS THEREOF

According to the Bureau of the Census, Current Industrial Reports: Antifriction Bearings, September 1990, and the Bureau of Labor Statistics, Labstat Report, Mar. 13, 1991, official statistics on the quantity and value of U.S. shipments, as applicable, and the number of production and related workers, for complete ball bearings and parts thereof, are presented in the following tabulation:

Product	1988	1989	1990
	Quantity (1,000 units)		
Complete ball bearings[1]	272,030	266,341	(2)
	Value (1,000 dollars)		
Complete ball bearings[1]	1,401,499	1,428,636	(2)
Parts and components	463,417	520,094	(2)
Ball bearings and parts	1,864,916	1,948,730	(2)
	Number of production workers		
Complete ball bearings	32,800	33,600	33,700

[1] Excludes unground bearings.
[2] Not available.

APPENDIX E

SHIPMENTS OF BALL BEARING PARTS AND COMPONENTS INCLUDING INTERNALLY CONSUMED PRODUCTS

Table E-1
Ball bearing parts and components: Shipments of U.S. producers, by types, 1988-90

* * * * * * *

APPENDIX F

RATIO OF IMPORTS OF COMPLETE BALL BEARINGS TO PRODUCTION BY U.S. PRODUCERS IMPORTING FROM THE 14 SUBJECT COUNTRIES

The following tabulation presents the ratio of imports of complete ball bearings to production in 1990 for U.S. producers importing from the countries subject to investigation:

* * * * * * *

APPENDIX G

EMPLOYMENT DATA FOR BALL BEARING PARTS AND COMPONENTS

Table G-1
Average number of production and related workers producing ball bearing parts and components, hours worked, wages and total compensation paid to such employees, and hourly wages, productivity, and unit labor costs, 1988-90

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APPENDIX H

ACTUAL OR POTENTIAL NEGATIVE EFFECTS OF IMPORTED BALL BEARINGS AND/OR PARTS THEREOF FROM THE SUBJECT COUNTRIES ON FIRMS' GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL, OR EXISTING DEVELOPMENT AND PRODUCTION EFFORTS

The Commission requested U.S. producers to describe any actual or potential negative effects on their growth, investment, ability to raise capital, or existing development and productive efforts as a result of imports of ball bearings, mounted or unmounted, and parts thereof from the 14 subject countries. The responses were as follows.--

* * * * * * *

APPENDIX I

U.S. IMPORTS OF BALL BEARINGS AND PARTS THEREOF BASED ON OFFICIAL IMPORT STATISTICS

Table I-1
Ball bearings and parts thereof: U.S. general imports, by sources and products, 1988-90

(In thousands of dollars[1])

Source	1988	1989	1990
Argentina:			
Complete ball bearings....	1,413	3,268	1,382
Parts and components.....	82	0	0
Total.....	1,495	3,268	1,382
Austria:			
Complete ball bearings....	5,866	8,779	8,472
Parts and components.....	54	109	50
Total.....	5,920	8,888	8,522
Brazil:			
Complete ball bearings....	2,084	2,063	2,070
Parts and components.....	44	311	495
Total.....	2,128	2,374	2,565
Canada:			
Complete ball bearings....	46,486	48,816	46,955
Parts and components.....	3,822	1,874	1,157
Total.....	50,308	50,690	48,112
China:			
Complete ball bearings....	5,689	11,844	15,478
Parts and components.....	280	119	66
Total.....	5,969	11,963	15,544
Hong Kong:			
Complete ball bearings....	815	2,664	1,026
Parts and components.....	107	53	25
Total.....	922	2,717	1,051
Hungary:			
Complete ball bearings....	1,964	3,008	3,685
Parts and components.....	10	0	0
Total.....	1,974	3,008	3,685
Korea:			
Complete ball bearings....	3,803	8,243	9,187
Parts and components.....	528	175	95
Total.....	4,331	8,418	9,282
Mexico:			
Complete ball bearings....	1,316	6,394	8,788
Parts and components.....	406	1,633	1,004
Total.....	1,722	8,027	9,792
Poland:			
Complete ball bearings....	554	2,417	2,860
Parts and components.....	1	0	0
Total.....	555	2,417	2,860

Table continued on following page.

Table I-1--Continued
Ball bearings and parts thereof: U.S. general imports, by sources and products, 1988-90

(In thousands of dollars[1])

Source	1988	1989	1990
Spain:			
Complete ball bearings....	2,243	13,957	8,050
Parts and components.....	5	0	0
Total.....	2,248	13,957	8,050
Taiwan:			
Complete ball bearings....	11,418	19,906	25,436
Parts and components.....	1,770	1,738	1,392
Total.....	13,188	21,644	26,828
Turkey:			
Complete ball bearings....	668	4,501	3,026
Parts and components.....	0	0	0
Total.....	668	4,501	3,026
Yugoslavia:			
Complete ball bearings....	1,407	4,282	3,209
Parts and components.....	352	197	5
Total.....	1,759	4,479	3,214
Total, subject imports:			
Complete ball bearings....	85,726	140,142	139,624
Parts and components.....	7,461	6,266	4,289
Total.....	93,187	146,408	143,913
All other imports:[2]			
Complete ball bearings....	600,763	486,184	428,913
Parts and components.....	64,323	26,620	21,992
Total.....	665,086	512,804	450,905
Total imports:			
Complete ball bearings..	686,489	626,326	568,536
Parts and components....	71,784	32,885	26,283
Total.....	758,273	659,211	594,819

[1] C.i.f., duty-paid value.
[2] Primarily European countries and Japan.

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

Table I-2
Ball bearings and parts thereof: U.S. imports for consumption, by sources and products, 1988-90

(In thousands of dollars[1])

Source	1988	1989	1990
Argentina:			
Complete ball bearings....	633	3,472	1,557
Parts and components.....	91	30	0
Total.....	724	3,502	1,557
Austria:			
Complete ball bearings....	5,300	7,714	6,121
Parts and components.....	59	119	209
Total.....	5,359	7,833	6,331
Brazil:			
Complete ball bearings....	1,482	2,001	1,891
Parts and components.....	47	618	529
Total.....	1,529	2,619	2,420
Canada:			
Complete ball bearings....	48,411	50,351	48,690
Parts and components.....	3,875	2,443	1,365
Total.....	52,286	52,793	50,055
China:			
Complete ball bearings....	6,181	13,137	16,448
Parts and components.....	301	269	554
Total.....	6,482	13,406	17,002
Hong Kong:			
Complete ball bearings....	853	2,592	802
Parts and components.....	114	56	152
Total.....	967	2,648	954
Hungary:			
Complete ball bearings....	2,172	3,331	4,080
Parts and components.....	11	88	0
Total.....	2,183	3,419	4,080
Korea:			
Complete ball bearings....	4,114	9,034	9,906
Parts and components.....	541	293	183
Total.....	4,655	9,327	10,089
Mexico:			
Complete ball bearings....	1,196	6,840	9,412
Parts and components.....	443	2,218	2,151
Total.....	1,639	9,058	11,563
Poland:			
Complete ball bearings....	937	2,639	2,978
Parts and components.....	2	0	0
Total.....	939	2,639	2,978

Table continued on following page.

Table I-2--Continued
Ball bearings and parts thereof: U.S. imports for consumption, by sources and products, 1988-90

(In thousands of dollars[1])

Source	1988	1989	1990
Spain:			
Complete ball bearings....	2,522	15,381	8,879
Parts and components.....	7	27	3
Total.....	2,529	15,408	8,882
Taiwan:			
Complete ball bearings....	12,428	21,864	27,853
Parts and components.....	1,882	2,243	1,584
Total.....	14,310	24,107	29,437
Turkey:			
Complete ball bearings....	739	4,978	3,200
Parts and components.....	0	0	10
Total.....	739	4,978	3,210
Yugoslavia:			
Complete ball bearings....	1,544	4,524	3,485
Parts and components.....	387	332	30
Total.....	1,931	4,857	3,515
Total, subject imports:			
Complete ball bearings....	88,512	147,858	145,302
Parts and components.....	7,760	8,736	6,771
Total.....	96,272	156,592	152,072
All other imports:[2]			
Complete ball bearings....	610,245	460,887	422,562
Parts and components.....	63,948	79,781	84,938
Total.....	674,193	540,668	507,500
Total imports:			
Complete ball bearings..	698,756	608,743	567,863
Parts and components....	71,708	88,517	91,709
Total.....	770,464	697,260	659,572

[1] C.i.f., duty-paid value.
[2] Primarily European countries and Japan.

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

APPENDIX J

DATA ON MARKET PENETRATION USING OFFICIAL IMPORT STATISTICS

Table J-1
Ball bearings and parts thereof: U.S. producers' shipments, U.S. imports for consumption from subject countries and all other sources, and apparent consumption, 1988-90

Item	1988	1989	1990
	Value (1,000 dollars)		
U.S. producers' shipments....	1,223,436	1,321,529	1,390,925
Imports from--			
Argentina.....	724	3,502	1,557
Austria.....	5,359	7,833	6,331
Brazil.....	1,529	2,619	2,420
Canada.....	52,286	52,793	50,055
China.....	6,482	13,406	17,002
Hong Kong.....	967	2,648	954
Hungary.....	2,183	3,419	4,080
Korea.....	4,655	9,327	10,089
Mexico.....	1,639	9,058	11,563
Poland.....	939	2,639	2,978
Spain.....	2,529	15,408	8,882
Taiwan.....	14,310	24,107	29,437
Turkey.....	739	4,978	3,210
Yugoslavia.....	1,931	4,857	3,515
Total, subject imports.	96,272	156,592	152,072
All other countries.....	674,193	540,668	507,500
Total, all imports.....	770,464	697,260	659,572
U.S. consumption.....	1,993,900	2,018,789	2,050,497
	As a share of the value of apparent consumption (percent)		
U.S. producers' shipments.....	61.4	65.5	67.8
Imports from--			
Argentina.....	(1)	.2	.1
Austria.....	.3	.4	.3
Brazil.....	.1	.1	.1
Canada.....	2.6	2.6	2.4
China.....	.3	.7	.8
Hong Kong.....	(1)	.1	(1)
Hungary.....	.1	.2	.2
Korea.....	.2	.4	.5
Mexico.....	.1	.4	.6
Poland.....	(1)	.1	.1
Spain.....	.1	.8	.4
Taiwan.....	.7	1.2	1.4
Turkey.....	(1)	.2	.2
Yugoslavia.....	.1	.2	.2
Total, subject imports..	4.8	7.8	7.4
All other countries.....	33.8	26.8	24.8
Total, all imports.....	38.6	34.5	32.2
Total.....	100.0	100.0	100.0

[1] Less than 0.05 percent.

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

Table J-2
Ball bearings and parts thereof: U.S. producers' shipments, U.S. general imports from subject countries and all other sources, and apparent consumption, 1988-90

Item	1988	1989	1990
	Value (1,000 dollars)		
U.S. producers' shipments....	1,223,436	1,321,529	1,390,925
Imports from--			
Argentina.....	1,495	3,268	1,382
Austria.....	5,920	8,888	8,522
Brazil.....	2,128	2,374	2,565
Canada.....	50,308	50,690	48,112
China.....	5,969	11,963	15,544
Hong Kong.....	922	2,717	1,051
Hungary.....	1,974	3,008	3,685
Korea.....	4,331	8,418	9,282
Mexico.....	1,722	8,027	9,792
Poland.....	555	2,417	2,860
Spain.....	2,248	13,957	8,050
Taiwan.....	13,188	21,644	26,828
Turkey.....	668	4,501	3,026
Yugoslavia.....	1,759	4,479	3,214
Total, subject imports.	93,187	146,408	143,913
All other countries.....	665,086	512,804	450,905
Total, all imports.....	758,277	659,211	594,819
U.S. consumption.....	1,981,713	1,980,740	1,985,744
	As a share of the value of apparent consumption (percent)		
U.S. producers' shipments.....	61.7	66.7	69.9
Imports from--			
Argentina.....	.1	.2	.1
Austria.....	.3	.4	.4
Brazil.....	.1	.1	.1
Canada.....	2.5	2.6	2.4
China.....	.3	.6	.8
Hong Kong.....	(1)	.1	.1
Hungary.....	.1	.2	.2
Korea.....	.2	.4	.5
Mexico.....	.1	.4	.5
Poland.....	(1)	.1	.1
Spain.....	.1	.7	.4
Taiwan.....	.7	1.1	1.4
Turkey.....	(1)	.2	.2
Yugoslavia.....	.1	.2	.2
Total, subject imports..	4.7	7.4	7.3
All other countries.....	33.6	25.9	22.8
Total, all imports.....	38.3	33.3	30.1
Total.....	100.0	100.0	100.0

[1] Less than 0.05 percent.

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

APPENDIX K

INDEXES OF WEIGHTED-AVERAGE NET F.O.B. SELLING PRICES OF THE SPECIFIED U.S.-PRODUCED AND SUBJECT IMPORTED BALL BEARINGS

Table K-1
Indexes of net f.o.b. selling prices to OEMs of U.S.-produced and subject imported ball bearings and the total-period quantities sold, by specified product, by country, and for the indexes by quarter, January 1988-December 1990[1]

Product/country	1988 Jan.-Mar.	1988 Apr.-Jun.	1988 Jul.-Sept.	1988 Oct.-Dec.	1989 Jan.-Mar.	1989 Apr.-Jun.	1989 Jul.-Sept.	1989 Oct.-Dec.	1990 Jan.-Mar.	1990 Apr.-Jun.	1990 Jul.-Sept.	1990 Oct.-Dec.	Total quantity (units)
Product 1:													
United States	100.0	98.6	104.2	133.8	146.5	146.5	149.3	154.9	154.9	143.7	138.0	136.6	18,353,155
Argentina	-	-	-	100.0	111.0	117.4	109.2	100.9	-	133.0	-	55.0	819,839
Brazil	-	-	-	-	-	-	-	100.0	100.0	100.0	100.0	100.0	49,000
Canada	100.0	111.4	111.4	111.4	147.1	147.1	147.1	147.1	162.9	184.3	151.4	145.7	371,524
China	-	-	-	-	100.0	90.5	96.2	86.7	-	-	-	-	368,370
Hong Kong	-	-	100.0	100.0	72.0	72.0	73.5	68.2	67.4	59.8	59.8	64.4	368,370
Hungary	-	-	-	-	100.0	115.2	-	-	115.2	115.2	-	-	18,019
Korea	-	-	-	-	-	-	-	-	-	-	-	100.0	3,600
Poland	-	-	-	-	-	-	-	100.0	100.0	-	-	-	20,160
Spain	-	-	-	-	-	100.0	97.5	90.9	84.3	79.3	76.0	79.3	1,737,252
Taiwan	100.0	128.3	130.0	130.0	146.7	168.3	171.7	181.7	171.7	170.0	173.3	173.3	2,980,675
Turkey	-	-	-	-	-	-	-	-	100.0	88.8	88.8	95.5	44,860
Yugoslavia	-	-	-	-	-	-	100.0	93.4	98.9	86.8	87.9	93.4	108,421
Product 2:													
United States	100.0	87.5	78.1	80.2	85.4	90.6	99.0	102.1	102.1	97.9	102.1	91.7	27,652,713
Argentina	-	-	-	100.0	111.7	101.7	193.3	193.3	130.0	91.7	91.7	91.7	65,930
Canada	100.0	101.2	101.2	106.0	106.0	106.0	109.6	112.0	124.1	112.0	118.1	112.0	20,879,950
China	-	-	100.0	-	104.2	89.5	100.0	117.9	123.2	103.2	103.2	103.2	502,401
Hong Kong	-	-	-	-	100.0	87.6	97.9	99.0	95.9	108.2	87.6	75.3	14,175
Hungary	100.0	-	-	-	-	-	-	-	-	-	-	-	230,168
Korea	-	-	-	-	-	-	-	-	-	100.0	98.8	98.8	135,560
Spain	100.0	-	-	-	56.7	86.5	88.7	84.4	88.7	138.3	76.6	73.0	578,300
Taiwan	100.0	126.6	126.6	126.6	143.8	167.2	167.2	167.2	176.6	151.6	178.1	159.4	1,386,299
Turkey					-	-	-	-	100.0	112.9	91.4	78.5	62,131
Yugoslavia					100.0	-	96.1	-	91.3	101.9	83.5	72.8	288,168
Product 3:													
United States	100.0	101.4	114.3	135.7	140.0	138.6	147.1	164.3	152.9	155.7	154.3	138.6	1,908,261
Canada	100.0	203.9	154.5	168.8	161.0	161.0	161.0	161.0	161.0	227.3	227.3	161.0	51,532
China	-	-	-	-	100.0	100.0	87.1	87.1	87.1	87.1	106.1	87.1	31,955
Spain	100.0	122.6	100.0	197.2	-	110.4	173.6	173.6	197.2	173.6	113.2	197.2	3,652
Taiwan	100.0	-	121.1	-	136.8	-	136.8	136.8	175.8	-	-	194.7	677
Product 4:													
United States	100.0	100.0	123.5	123.5	135.7	277.6	135.7	173.5	292.9	292.9	158.2	239.8	6,516,625
Spain	100.0	100.0	97.3	68.5	146.1	73.5	128.8	73.5	73.5	120.5	113.7	71.7	588,804
Taiwan	100.0	110.3	158.9	132.7	154.2	154.2	162.6	170.1	170.1	162.6	190.7	196.3	696,000
Product 5:													
United States	100.0	109.7	171.6	144.3	170.5	195.5	133.0	172.7	178.4	194.9	185.2	179.0	2,786,272
China	-	-	-	-	100.0	112.8	115.0	120.5	91.1	100.2	82.9	108.4	101,738
Mexico	100.0	108.7	108.7	117.8	119.6	136.0	119.6	115.0	115.0	115.0	115.0	115.0	28,016
Product 6:													
United States	100.0	100.0	44.0	105.7	106.0	114.3	114.3	114.4	114.5	122.5	114.4	122.5	16,655
Mexico	100.0	100.0	100.0	-	-	71.8	71.8	71.8	73.7	71.8	72.4	110.9	9,860

[1] The ball bearing price indexes are based on averages of the net f.o.b. selling prices of the largest quarterly sales of responding U.S. producers and importers weighted by the responding firms' total sales quantity of each county's product in that quarter.

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

Note.--January-March 1988=100, unless otherwise indicated.

Table K-2
Indexes of net f.o.b. selling prices to DISTRIBUTORS of U.S.-produced and subject imported ball bearings and the total-period quantities sold, by specified product, by country, and for the indexes by quarter, January 1988-December 1990[1]

Product/country	1988 Jan.-Mar.	1988 Apr.-Jun.	1988 Jul.-Sept.	1988 Oct.-Dec.	1989 Jan.-Mar.	1989 Apr.-Jun.	1989 Jul.-Sept.	1989 Oct.-Dec.	1990 Jan.-Mar.	1990 Apr.-Jun.	1990 Jul.-Sept.	1990 Oct.-Dec.	Total quantity (units)
Product 1:													
United States....	100.0	101.4	115.7	101.4	137.9	108.6	170.7	167.9	184.3	177.9	132.9	127.1	1,431,790
Canada.....	100.0	86.8	120.9	148.4	213.2	164.8	220.9	257.1	258.2	259.3	257.1	245.1	121,753
China.....	100.0	100.0	100.0	100.0	149.4	128.2	116.5	95.3	89.4	-	-	-	226,574
Hong Kong.....	-	-	-	-	100.0	80.1	72.8	72.1	69.1	65.4	60.3	60.3	42,388
Hungary.....	100.0	-	-	110.6	-	-	-	128.2	128.2	128.2	-	-	4,574
Korea.....	100.0	119.2	157.7	157.7	157.7	157.7	169.2	169.2	165.4	159.6	144.2	153.8	2,330,873
Poland.....	-	-	-	-	100.0	-	-	112.3	-	-	-	-	152,900
Spain.....	-	-	-	-	-	-	-	100.0	-	107.8	107.8	-	340
Taiwan.....	100.0	120.7	135.4	153.7	240.2	237.8	222.0	236.6	192.7	232.9	219.5	203.7	86,790
Turkey.....	-	-	-	-	-	-	-	-	100.0	94.7	87.2	87.2	5,664
Yugoslavia.....	-	-	-	-	-	100.0	-	66.9	72.7	71.9	67.8	67.8	143,424
Product 2:													
United States....	100.0	100.0	114.0	87.1	150.0	159.1	158.6	155.9	153.8	159.1	158.1	132.3	1,290,827
Canada.....	100.0	170.4	164.2	174.1	271.6	292.6	218.5	303.7	327.2	293.8	328.4	330.9	238,788
China.....	100.0	100.0	100.0	100.0	113.7	110.5	122.1	87.4	83.2	102.1	98.9	102.1	468,185
Hong Kong.....	-	-	-	-	100.0	77.8	73.3	73.3	85.2	70.4	56.3	54.8	103,825
Hungary.....	-	-	-	-	-	-	100.0	88.9	88.9	97.0	92.9	-	173,350
Korea.....	100.0	117.9	160.7	160.7	160.7	160.7	167.9	167.9	162.5	155.4	142.9	153.6	4,484,553
Poland.....	-	-	-	-	-	-	100.0	92.9	91.9	-	-	-	122,400
Spain.....	100.0	-	-	-	-	-	-	-	-	-	-	208.6	64
Taiwan	100.0	127.6	124.1	156.3	154.0	182.8	241.4	242.5	229.9	166.7	174.7	146.0	24,726
Turkey.....	-	-	-	-	-	-	-	-	100.0	82.6	66.1	64.3	16,692
Yugoslavia.....	-	-	-	100.0	130.5	117.1	101.0	83.8	111.4	94.3	86.7	76.2	88,574
Product 3:													
United States ...	100.0	84.6	95.9	111.4	162.6	172.4	169.9	169.1	192.7	153.7	193.5	196.7	60,611
Canada.....	100.0	105.8	113.6	196.1	196.1	189.3	189.3	189.3	189.3	204.9	204.9	204.9	12,440
Spain.....	100.0	100.0	106.4	106.4	177.3	177.3	177.3	177.3	130.9	191.8	191.8	191.8	58,518
Taiwan.....	-	100.0	-	-	163.5	352.9	165.9	-	142.4	-	-	-	592
Product 4:													
United States...	100.0	147.9	94.2	122.9	132.1	131.7	170.0	184.2	125.4	133.3	122.9	133.8	578,240
Spain.....	100.0	59.0	79.8	59.0	158.5	167.8	173.2	167.8	181.4	181.4	181.4	181.4	455,031
Taiwan.....	100.0	105.1	125.6	158.6	158.6	166.7	165.7	210.4	168.4	166.7	147.5	147.5	4,089
Product 5:													
United States...	100.0	244.8	114.9	135.7	128.6	135.3	167.2	131.5	143.2	125.7	129.9	134.0	2,250,870
China.....	-	-	-	-	100.0	95.4	144.9	144.9	90.1	101.2	100.6	90.7	17,514
Mexico.....	100.0	100.0	105.9	105.9	105.9	138.4	130.3	115.0	125.0	114.4	123.4	123.4	19,133
Product 6:													
United States...	100.0	137.2	147.0	146.5	157.8	163.6	158.9	161.1	168.0	129.0	167.2	171.8	158,505
China.....	-	-	-	-	-	-	-	-	-	-	100.0	89.8	23
Mexico	100.0	100.0	100.0	106.0	114.5	114.5	90.2	109.3	122.1	122.1	123.3	122.2	15,182

[1] The ball bearing price indexes are based on averages of the net f.o.b. selling prices of the largest quarterly sales of responding U.S. producers and importers weighted by the responding firms' total sales quantity of each country's product in that quarter.

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

Note.--January-March 1988=100, unless otherwise indicated.

APPENDIX L

QUARTERLY NET F.O.B. SELLING PRICE COMPARISONS BETWEEN U.S.-PRODUCED AND IMPORTED BALL BEARINGS

Table L-1
Margins of under/(over) selling between U.S.-produced and imported ball bearings sold to OEMs and the total-period quantities sold, by specified product, by foreign country, and for the margins by quarter, January 1988-December 1990

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Table L-2
Margins of under/(over) selling between U.S.-produced and imported ball bearings sold to DISTRIBUTORS and the total-period quantities sold, by specified product, by foreign country, and for the margins by quarter, January 1988-December 1990

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