

57

TAPERED ROLLER BEARINGS AND PARTS THEREOF, AND CERTAIN HOUSINGS INCORPORATING TAPERED ROLLERS FROM HUNGARY, THE PEOPLE'S REPUBLIC OF CHINA, AND ROMANIA

**Determinations of the
Commission in Investigations
Nos. 731-TA-341, 344,
and 345 (final) Under the
Tariff Act of 1930
Together With the
Information Obtained
in the Investigations**

USITC PUBLICATION 1983

JUNE 1987

UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMISSIONERS

Susan Liebeler, Chairman
Anne E. Brunsdale, Vice Chairman
Alfred E. Eckes
Seeley G. Lodwick
David B. Rohr

Staff assigned:

Maria Papadakis, Investigator
Janine Wedel, Investigator
Jerry Tepper, Financial Analyst
Debbie Ladomirak, Commodity-Industry Analyst
John Ryan, Economist
Phyllis Smithey, Attorney

Lynn Featherstone, Supervisory Investigator

Address all communications to
Kenneth R. Mason, Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

C O N T E N T S

	<u>Page</u>
Determination.....	A-1
Views of Commissioner Eckes, Commissioner Lodwick, and Commissioner Rohr.....	A-3
Views of Chairman Liebeler.....	A-21
Dissenting Views of Vice Chairman Anne E. Brunsdale.....	A-37
Information obtained in the investigations:	
Introduction.....	A-1
Background.....	A-1
Previous investigations and scope of the current investiga- tions.....	A-2
The product.....	A-3
Description and uses.....	A-3
Self-contained tapered roller bearing packages.....	A-6
Mounted bearing units.....	A-7
Finished and unfinished components of tapered roller bearings.....	A-7
Manufacturing process.....	A-8
Mounted bearing units.....	A-10
Cartridge bearing units.....	A-10
Unfinished tapered roller bearing components.....	A-10
U.S. tariff treatment.....	A-11
Problems with product definition.....	A-12
Nature and extent of alleged sales at LTFV.....	A-13
Character of the U.S. market.....	A-13
U.S. producers.....	A-13
Major changes in the U.S. industry.....	A-14
The experience of Hyatt Clark.....	A-16
U.S. importers.....	A-18
The U.S. market.....	A-19
U.S. consumption.....	A-24
Channels of distribution.....	A-24
Summary of the U.S. Industry and Market.....	A-25
Related party issues.....	A-26
Consideration of alleged material injury.....	A-27
Capacity, production, and capacity utilization.....	A-27
U.S. producers' domestic and export shipments.....	A-28
U.S. producers' inventories.....	A-29
U.S. producers' purchases.....	A-29
U.S. employment and wages.....	A-31
Financial experience of U.S. producers.....	A-32
Overall establishment operations.....	A-32
Operations on tapered roller bearings.....	A-32
Operations of the Timken Company.....	A-32
Operations of Hyatt Clark Industries.....	A-38
Investment in productive facilities.....	A-38
Capital expenditures.....	A-38
Research and development.....	A-40
Capital and investment.....	A-40
Summary of U.S. Producers' Performance.....	A-41
Consideration of alleged threat of material injury.....	A-41
U.S. importers' inventories.....	A-44
Ability of foreign producers to generate exports.....	A-45

CONTENTS--Continued

	<u>Page</u>
Information obtained in the investigations, con't:	
Consideration of the causal relationship between the alleged LTFV imports and the alleged material injury:	
U.S. imports.....	A-45
Hungary.....	A-48
Italy.....	A-48
China.....	A-48
Romania.....	A-48
Japan.....	A-49
Yugoslavia.....	A-49
Market penetration.....	A-49
Cumulative effects of imports under investigation.....	A-52
Imports and market shares of LTFV merchandise.....	A-52
Quality considerations.....	A-54
Critical circumstances.....	A-57
Prices.....	A-58
Price trends.....	A-59
Relative prices.....	A-60
Lost sales.....	A-61
Lost sales involving Romania.....	A-61
Lost sales involving China.....	A-61
Lost sales involving Hungary.....	A-61
Lost revenues.....	A-61
Exchange rates.....	A-89
Appendix A. <u>Federal Register</u> notices of the Commission	A-91
Appendix B. List of witnesses appearing at the Commission's hearing.....	A-97
Appendix C. <u>Federal Register</u> notices of Commerce.....	A-103
Appendix D. Documents pertaining to quality issues.....	A-129

FIGURES

Figure 1. Tapered roller bearing.....	A-5
Figure 2. Finishing operations on tapered roller bearings.....	A-11
Figure 3. Apparent U.S. consumption, U.S. producers' shipments, and U.S. imports of tapered roller bearings, 1980-86.....	A-23

TABLES

1. Tapered roller bearings: U.S. rates of duty, by TSUSA items.....	A-12
2. Tapered roller bearings: U.S. producers, their share of 1983 and 1986 shipments, and positions with regard to the petition.....	A-15

CONTENTS--Continued

TABLES

	<u>Page</u>
3. Tapered roller bearings: Major U.S. importers and their share of 1986 imports, by value.....	A-18
4. Tapered roller bearings: Shares (by quantity) of U.S. producers' domestic shipments, imports, and apparent consumption accounted for by types of markets, 1984-86.....	A-20
5. Tapered roller bearings: Shares (by quantity) of markets accounted for by U.S. producers' domestic shipments and imports, 1984-86.....	A-22
6. Tapered roller bearings: Apparent U.S. consumption, 1983-86.....	A-25
7. Tapered roller bearings: U.S. producers' production, capacity, and capacity utilization, 1983-86.....	A-28
8. Tapered roller bearings: U.S. producer's shipments, 1983-86.....	A-29
9. Tapered roller bearings: U.S. producers' end-of-period inventories, 1983-86.....	A-30
10. Tapered roller bearings: U.S. producers' purchases and imports, 1984-86.....	A-31
11. Average number of production and related workers engaged in the manufacture of tapered roller bearings, hours worked by such workers, wages paid, and total compensation, 1983-86.....	A-32
12. Income-and-loss experience of 10 U.S. producers on the overall operations of their establishments within which tapered roller bearings are produced, accounting years 1983-86.....	A-33
13. Income-and-loss experience of 10 U.S. producers on their operations producing tapered roller bearings, accounting years 1983-86.....	A-34
14. Income-and-loss experience of Timken Company on its operations producing tapered roller bearings, accounting years 1983-86.....	A-36
15. Income-and-loss experience of 10 U.S. producers on their operations producing tapered roller bearings, by selected producers, accounting years 1983-86.....	A-39
16. Tapered roller bearings: U.S. producers' end-of-period valuation of fixed assets, accounting years 1983-86.....	A-39
17. Tapered roller bearings: Capital expenditures, accounting years 1983-86.....	A-40
18. Tapered roller bearings: U.S. producers' capacity, production, and capacity utilization by selected producers, 1983-86.....	A-42
19. Tapered roller bearings: U.S. producers' shipments, market shares, employment, and operating losses by selected producers, 1983-86.....	A-43
20. Tapered roller bearings: U.S. importers' inventories, 1983-86...	A-44
21. Tapered roller bearings: Foreign producer data, 1983-86.....	A-45

CONTENTS--Continued

TABLES

	<u>Page</u>
22. Tapered roller bearings and parts thereof: Total U.S. imports, by quantity, 1983-86.....	A-46
23. Tapered roller bearings and parts thereof: Total U.S. imports, by value, 1983-86.....	A-47
24. Tapered roller bearings and parts thereof: U.S. imports from Japan subject to investigation, 1983-86.....	A-50
25. Tapered roller bearings: Apparent U.S. consumption and market shares of imports, 1983-86.....	A-51
26. Tapered roller bearings: Imports and market shares of LTFV imports only, 1983-1986.....	A-53
27. Tapered roller bearings: Weighted-average prices for sales of LM11949/10 sets (1.781-inch outside diameter) to OEMS and distributors, as reported by U.S. producers and importers, by quarters, January 1984-June 1986.....	A-62
28. Tapered roller bearings: Weighted-average prices for sales of LM11949 cone assemblies to OEMS and distributors, as reported by U.S. producers and importers, in dollars per bearing, by quarters, January 1984-June 1986.....	A-63
29. Tapered roller bearings: Weighted-average prices for sales of 25580 cone assemblies, to OEMS and distributors, as reported by U.S. producers and importers by quarters, January 1984-June 1986.....	A-64
30. Tapered roller bearings: Weighted-average prices for sales of HM212049 cone assemblies to OEMs and distributors, as reported by U.S. producers and importers, in dollars per bearing, by quarters, January 1984-June 1986.....	A-65
31. Tapered roller bearings: Weighted-average prices for sales of HM212010 cups (4.8125-inch outside diameter), to OEMs and distributors, as reported by U.S. producers and importers, by quarters, January 1984-June 1986.....	A-66
32. Tapered roller bearings: Weighted-average prices for sales of LM67010 cups to OEMs and distributors, as reported by U.S. producers and importers, in dollars per bearing, by quarters, January 1984-June 1986.....	A-67
33. Tapered roller bearings: Weighted-average prices for purchasers of LM11949/10 sets by OEMs and distributors, as reported by U.S. purchasers, dollars per bearing, by quarters January 1984-June 1986.....	A-68
34. Tapered roller bearings: Weighted-average prices for purchases of LM11949 cone assemblies by OEMs and distributors, as reported by U.S. purchasers, by quarters, January 1984-June 1986.....	A-69
35. Tapered roller bearings: Weighted-average prices for purchases of 22580 cone assemblies by OEMs and distributors, as reported by U.S. purchasers, by quarters, January 1984-June 1986.....	A-70

CONTENTS--Continued

TABLES

	<u>Page</u>
36. Tapered roller bearings: Weighted-average prices for purchases of HM212049 cone assemblies by OEMs and distributors, as reported by U.S. purchasers, by quarters, January 1984-June 1986.....	A-71
37. Tapered roller bearings: Weighted-average prices for purchases of HM212010 cups by OEMs and distributors, as reported by U.S. purchasers, by quarters, January 1984-June 1986.....	A-72
38. Tapered roller bearings: Weighted-average prices for purchases of LM67010 cups by OEMs and distributors, as reported by U.S. purchasers, by quarters, January 1984-June 1986.....	A-73
39. Tapered roller bearings: Average margins (per unit) by which imports of LM11949/10 sets (1.7810-inch outside diameter) undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters, January 1984-June 1986..	A-74
40. Tapered roller bearings: Average margins (per unit) by which imports of LM11949 cone assemblies undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters, January 1984-June 1986.....	A-76
41. Tapered roller bearings: Average margins (per unit) by which imports of "25580" cone assemblies undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters, January 1984-June 1986.....	A-78
42. Tapered roller bearings: Average margins (per unit) by which imports of HM212049 cone assemblies undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters, January 1984-June 1986.....	A-79
43. Tapered roller bearings: Average margins (per unit) by which imports of HM212010 cups (4.8125-inch outside diameter) undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters, January 1984-June 1986..	A-80
44. Tapered roller bearings: Average margins (per unit) by which imports of LM67010 cups undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters, January 1984-June 1986.....	A-81
45. Tapered roller bearings: Average margins (per unit) by which purchases of imports of LM11949/10 sets by purchasers undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters, January 1984-June 1986.....	A-83
46. Tapered roller bearings: Average margins (per unit) by which purchases of imports of LM11949 cone assemblies by purchasers undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986..	A-84
47. Tapered roller bearings: Average margins (per unit) by which purchases of imports of 22580 cone assemblies by purchasers undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters, January 1984-June 1986.....	A-85

CONTENTS--Continued

TABLES

	<u>Page</u>
48. Tapered roller bearings: Average margins (per unit) by which purchases of imports of HM212049 cone assemblies by purchasers undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters, January 1984-June 1986.....	A-86
49. Tapered roller bearings: Average margins (per unit) by which purchases of imports of HM212010 cups by purchasers undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters January 1984-June 1986.....	A-87
50. Tapered roller bearings: Average margins (per unit) by which purchases of imports of LM67010 cups by purchasers undersold or (oversold) the U.S.-produced product; by countries of origin, types of customer, and quarters January 1984-June 1986.....	A-88
51. Exchange rates: Nominal-exchange-rate equivalents of selected currencies in U.S. dollars, real-exchange-rate equivalents, and producer price indicators in specified countries indexed by quarters, January 1983-June 1986.....	A-90

Note--Information that would reveal the confidential operations of individual concerns may not be published and therefore has been deleted from this report. Deletions of data are indicated by ***; deletions of sentences and phrases by * * *; and deletions of whole paragraphs are indicated by *****.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, DC

Investigations Nos. 731-TA-341, 344, 345 (Final)

Tapered Roller Bearings and Parts Thereof, and Certain Housings
Incorporating Tapered Rollers from Hungary,
The People's Republic of China, and Romania

Determination

On the basis of the record 1/ developed in the subject investigation, the Commission determines, 2/ pursuant to section 735(b)(1) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)(1)), that an industry in the United States is materially injured by reason of imports from Hungary, the People's Republic of China and Romania of tapered roller bearings and parts thereof, and certain housings incorporating tapered rollers, all the foregoing provided for in items 680.3040, 680.3932, 680.3934, 680.3938, 680.3940, 681.1010, or 692.3295 of the Tariff Schedules of the United States, that have been found by the Department of Commerce to be sold in the United States at less than fair value (LTFV).

Further, pursuant to section 735(b)(4)(A) of the Act (19 U.S.C. § 1673d(b)(4)(A)), the Commission determines that the material injury in the investigation involving imports from Romania is not by reason of massive imports over a relatively short period to an extent that, in order to prevent such material injury from recurring, it is necessary to impose the antidumping duty retroactively on these imports.

Background

The Commission instituted this investigation effective February 6, 1987, following preliminary determinations by the Department of Commerce that imports of the subject merchandise from Hungary, the People's Republic of China, and Romania are being sold at LTFV within the meaning of section 731 of

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

2/ Chairman Liebel and Vice Chairman Brunsdale dissenting.

the Act (19 U.S.C. § 1673). Notice of the institution of the Commission's investigations and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of February 26, 1987 (52 F.R. 5841). The hearing was held in Washington, DC, on May 12, 1987, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF COMMISSIONER ECKES, COMMISSIONER LODWICK,
AND COMMISSIONER ROHR

We determine that an industry in the United States is materially injured by reason of imports of tapered roller bearings and parts thereof, and certain housings incorporating tapered rollers, from Hungary, the People's Republic of China (PRC), and Romania, articles which the Department of Commerce has determined are being, or are likely to be, sold in the United States at less than fair value (LTFV).

Our determinations are based on an assessment of the volume and effects of the cumulated imports from the three countries in question together with imports from Italy, Japan, and Yugoslavia which are subject to investigation. We find that (1) the performance indicators of the domestic industry have deteriorated over the period of investigation; (2) the volume and penetration of imports are significant and have increased or remained constant during the period under investigation; (3) the value of such imports has increased; and (4) the increasing levels of imports have had an adverse impact on prices in the United States for the like product.

We further determine that the material injury is not by reason of massive imports from Romania to an extent that, in order to prevent such material injury from recurring, it is necessary to impose the antidumping duties retroactively on those imports.

Like Product/Domestic Industry

In final antidumping investigations under title VII of the Tariff Act of 1930, the Commission commences its analysis by defining the domestic industry to be examined in order to determine, pursuant to section 735(b)(1), ^{1/} whether there is material injury or a threat thereof by reason of the subject

^{1/} 19 U.S.C. § 1673d(b)(1).

imports. ^{2/} Section 771(4)(A) defines the term "industry" as "the domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product." ^{3/} "Like product," in turn, is defined as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article[s] subject to an investigation" ^{4/} The imports under investigation here are tapered roller bearings and parts thereof (finished or unfinished); flange, take-up, cartridge, and hanger units incorporating tapered roller bearings; and tapered roller housings (except pillow blocks) incorporating tapered rollers, with or without spindles, and whether or not for automotive use. ^{5/}

In previous investigations, the Commission has generally considered the following factors in making its like product finding: (1) the physical appearance of each product; (2) the uses; (3) whether the products are interchangeable; (4) customer perceptions of the articles; (5) channels of

^{2/} Section 735(b)(1) also directs the Commission to determine whether the establishment of an industry is materially retarded by reason of the subject imports. 19 U.S.C. § 1673d(b)(1). Material retardation is not an issue in these investigations, however, and will not be discussed in this opinion.

^{3/} 19 U.S.C. § 1677(4)(A).

^{4/} 19 U.S.C. § 1677(10). The legislative history of title VII cautions against defining the like product too narrowly: "The requirement that a product be 'like' the imported article should not be interpreted in such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other, nor should the definition of 'like product' be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under investigation." S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979).

^{5/} 52 Fed. Reg. 5841 (Feb. 26, 1987) and 52 Fed. Reg. 11347 (Apr. 8, 1987).

distribution; and (6) whether there are common manufacturing facilities and production employees. ^{6/} The foregoing list is not exhaustive, and no single factor is determinative.

1. A Single Like Product or Multiple Like Products

Tapered roller bearings are machine components that permit free motion between moving and fixed parts by holding or guiding the moving parts to minimize friction and wear. They are designed and sized for specific applications in a variety of products and industries, including automotive equipment, farm and industrial machinery, construction equipment, conveyors, railroad equipment, and various miscellaneous vehicles. Because of the range of applications, these roller bearings vary considerably in size—i.e., from a half inch to over 100 inches in outside diameter; and because they are precision machine parts, the acceptable variances in dimensions and tolerances are often measured in millionths of an inch. ^{7/}

In determining whether tapered roller bearings constitute a single like product or multiple like products, we took into account the following factors:

^{6/} See, e.g., Certain Stainless Steel Butt-Weld Pipe Fittings from Japan, Inv. No. 731-TA-376 (Preliminary), USITC Pub. 1978 at 5 (May 1987); Color Picture Tubes from Canada, Japan, the Republic of Korea, and Singapore, Invs. Nos. 731-TA-367 through 370 (Preliminary), USITC Pub. 1937 at 4 (Jan. 1987); Portland Hydraulic Cement and Cement Clinker from Colombia, France, Greece, Japan, Mexico, the Republic of Korea, Spain, and Venezuela, Invs. Nos. 731-TA-356 through 363 (Preliminary), USITC Pub. 1925 at 4 (Dec. 1986); Certain Television Receivers from the Republic of Korea and Taiwan, Invs. Nos. 731-TA-134 and 135 (Final) USITC Pub. 1514 at 3-6 (Apr. 1984); Certain Radio Paging and Alerting Receiving Devices from Japan, Inv. No. 731-TA-102 (Final), USITC Pub. 1410 at 8-9 (Aug. 1983).

^{7/} See generally Report of the Commission (Report) at A-3-A-8.

(1) Physical characteristics and uses. Tapered roller bearings of all types have the same basic elements. ^{8/} They also have the same essential function—namely, the reduction of friction between moving parts. ^{9/} While there are many possible variations on the basic design, ^{10/} the variations do not alter the essential antifriction function of the bearing.

(2) Interchangeability. Owing to the wide range of sizes and uses, ^{11/} tapered roller bearings of all sizes and types are not interchangeable or substitutable. However, there is a certain degree of standardization: tapered roller bearings are classified according to part numbers which identify such important characteristics as the outside and inside diameters of the bearing, the roller angle, and various interchange dimensions. ^{12/} Specifications such as the internal geometries and specific tolerances of the bearing vary from manufacturer to manufacturer. ^{13/} That fact, inter alia, prevents bearings of the same part number, but produced by different manufacturers, from being identical, but within the given range of specifications, they are sufficiently interchangeable.

As the foregoing discussion indicates, if the Commission were to make distinctions based on individual sizes, specifications, or uses of bearings,

^{8/} Id. at A-3-A-5.

^{9/} Id. at A-3.

^{10/} See Id. at A-6-A-7.

^{11/} Id. at A-4.

^{12/} Id. at A-4 and A-6.

^{13/} Id. at A-6.

it is unclear what dividing lines would be appropriate. ^{14/}

(3) Channels of distribution. Tapered roller bearings of various sizes and types also have common or similar channels of distribution. ^{15/}

(4) Common Manufacturing facilities and production employees. The tapered roller bearing producers make bearings of all size ranges at the same manufacturing facilities and in some instances on common production machinery. ^{16/}

For the foregoing reasons, we have determined that it would not be appropriate to find that various types and sizes of tapered roller bearings constitute discrete like products, and we find that all tapered roller bearings constitute a single like product. ^{17/}

^{14/} When the Commission has considered this problem in the past, it has usually concluded that there is one like product, viewing the product in terms of a continuum. See, e.g., Certain Steel Wire Nails from the Republic of Korea, Inv. No. 701-TA-145 (Preliminary), USITC Pub. 1223 at 4 (Mar. 1982); Carton-Closing Staples and Nonautomatic Carton-Closing Staple Machines from Sweden, Invs. Nos. 731-TA-116 and 117 (Final), USITC Pub. 1341 at 7 n.13 (Jan. 1983); Certain Steel Wire Nails from Japan, the Republic of Korea, and Yugoslavia, Invs. Nos. 731-TA-45, 46, and 47 (Preliminary), USITC Pub. 1175 at 12 (Aug. 1981); and Portable Electric Nibblers from Switzerland, Inv. No. 731-TA-35 (Preliminary), USITC Pub. 1108 at 4-5 (Nov. 1980).

^{15/} Report at A-24.

^{16/} Id. at A-8-A-10.

^{17/} Some respondents alleged that the imports from Hungary, the PRC, and Romania are inferior to domestic products. They also suggested that quality differences between the imports and the domestic products are so great that there is no domestic like product (and hence no industry being materially injured or threatened with material injury by reason of the subject imports).

We reject that argument for the following reasons: The fact that the imported and domestic articles may not be identical does not necessarily mean there is no like product. The statute and its legislative history dictate that in the absence of a product like (i.e., the same as or identical to) the imported article, the Commission is to examine the domestic production of the product that is most similar to the import in characteristics and uses. 19 U.S.C. § 1677(10); S. Rep. No. 249, supra, at 83 and 90. We find that the domestic tapered roller bearings, parts thereof, and certain housings incorporating tapered rollers are most similar in uses and characteristics to the imported articles under investigation. Despite differences in quality, all tapered roller bearings, domestic and foreign, have the same elements and the same essential use. Moreover, again despite differences in quality, the domestic products do compete with imports from Hungary, the PRC, and Romania in certain segments of the market. See the discussion in this opinion concerning cumulation.

2. Whether Parts Are to be Assessed Within the Finished Product

We also considered whether the domestic production of parts and components of tapered roller bearings should be considered separate like products. ^{18/} In analyzing the matter, we took into account (1) the essential characteristics of the final product and the parts; (2) the nature and extent of operations performed on the parts in order to make the final product; and (3) whether the parts are dedicated exclusively for use in the final product or have an independent use.

The key characteristic of a finished tapered roller bearing is its ability to reduce friction. ^{19/} Tapered roller bearing cone assemblies and cups are regarded as tapered roller bearings rather than components and are sold as commodities. ^{20/} Unfinished components cannot reduce friction and they require substantial finishing before they can be assembled into a cone assembly or function as a tapered roller bearing cup. ^{21/} The differences in the operations performed on the various unfinished parts and components are significant. ^{22/} Unfinished components are rarely sold as a commodity in the U.S. market, and appear to have no use apart from their use in tapered roller bearings. ^{23/} We therefore determine that parts and components of tapered roller bearings shall be included in the like product of finished tapered roller bearings.

^{18/} For a description of the various finished and unfinished parts and components of tapered roller bearings, see the Report at A-2, A-4, and A-7.

^{19/} Id. at A-3-A-4.

^{20/} Id. at A-7-A-8.

^{21/} Id. at A-7-A-8. (See generally id. at A-8-A-10.)

^{22/} Id. at A-8-A-10.

^{23/} Id. at A-4.

For all of the reasons discussed above, we determine that there is a single like product consisting of tapered roller bearings and parts thereof—finished or unfinished; flange, take-up cartridge, and hanger units incorporating tapered roller bearings, and tapered roller housings (except pillow blocks) incorporating tapered rollers, with or without spindles, and whether or not for automotive use.

3. Definition of the Domestic Industry

In our preliminary determinations in the instant investigations, we found that there was one domestic industry and that it included all domestic producers. We have no reason to revise that definition here. ^{24/}

Therefore, we again determine that the relevant domestic industry consists

^{24/} The following domestic producers are related to an exporter of the merchandise subject to investigation: American NTN Bearing Manufacturing Corp., Koyo Corp. of the U.S.A., NTN-Bower Corp., and SKF Industries, Inc. Section 771(4)(D) of the Act (19 U.S.C. § 1677(4)(B)) provides in pertinent part that "When some producers are related to the exporters or importers, or are themselves importers of the allegedly subsidized or dumped merchandise, the term 'industry' may be applied in appropriate circumstances by excluding such producers from those included in that industry." Application of the related parties provision is discretionary, and depends on the Commission's assessment of the facts in each case.

In the instant investigations, we did not apply the provision to exclude any of the aforesaid domestic producers from the domestic industry. The relevant data for each producer are confidential; we note, however, that in 1986, the companies in question together accounted for a relatively small percentage of total U.S. shipments by value. In each case, either the company's imports accounted for a nominal share by value of its U.S. shipments, or its performance indicators were consistent with the industry as a whole. Including the related producers within the domestic industry therefore does not significantly distort the economic data or fail to provide an accurate picture of the domestic industry as a whole.

of the ten domestic companies that produced tapered roller bearings and parts thereof during the period under investigation. ^{25/}

Condition of the domestic industry ^{26/}

In determining the condition of the domestic industry, the Commission considers, among other factors, domestic consumption, U.S. production, capacity, capacity utilization, shipments, inventories, employment, and financial performance. ^{27/} Although the data in these investigations reveal that some of the domestic industry's performance indicators improved from 1983-84, the industry's performance deteriorated from 1985-86 and overall 1986 levels were below those for 1983.

Apparent U.S. consumption of tapered roller bearings rose sharply from 265 million units in 1983 to 327 million units in 1984 and then declined to 279 million units in 1985 and to 264 million units in 1986. The volume of consumption was 0.7 percent lower in 1986 than in 1983. ^{28/} On a value basis, apparent U.S. consumption followed the same trend, increasing sharply from \$704 million in 1983 to \$895 million in 1984, before declining to \$793 million in 1985 to \$705 million in 1986. The value of consumption was 0.2

^{25/} Those producers are Timken, Brenco, Inc., Hyatt-Clark Industries, The Torrington Co., American NTN Bearing Manufacturing Corp., Federal Mogul Corp., Koyo Corp. of the U.S.A., NTN-Bower Corp., SKF Industries, Inc., and L&S Bearing Co. See Report at A-13-A-14.

^{26/} Commissioner Eckes notes that owing to the variety of sizes of tapered roller bearings and the disparities in product mix among the domestic producers, it is appropriate to look at value data as well as volume data in assessing the condition of the domestic industry and the impact of imports.

^{27/} 19 U.S.C. § 1677(7)(C)(iii).

^{28/} Report at A-25, Table 6.

percent higher than in 1983. ^{29/} Domestic shipments of tapered roller bearings declined 13.7 percent by volume and 7.4 percent by value during the period 1983-86. ^{30/}

Domestic production of tapered roller bearing cone assemblies and cups ^{31/} declined 2.8 percent and 10.3 percent, respectively, during 1983-86. ^{32/} The capacity of the domestic industry to produce tapered roller bearings declined slightly over the period of investigation, despite the addition of a new producer in 1985. ^{33/} The capacity to produce cone assemblies declined 4.6 percent from 1983-86, while capacity to produce cups declined 2.8 percent during the same period. ^{34/} Although the capacity utilization for cone assemblies increased slightly from 51.2 percent to 52.2 percent during 1983-86, capacity utilization for cups dropped slightly from 54.6 percent in 1983 to 50.4 percent in 1986. ^{35/} Thus capacity utilization remained low throughout the period under investigation.

Year-end inventories of tapered roller bearings increased by 0.4 percent from 1983 to 1986. ^{36/} As a share of shipments, inventories also rose slightly by 3.2 percentage points from 1983 to 1986. ^{37/}

^{29/} Id.

^{30/} Id. at A-29.

^{31/} We have utilized the data available for cone assemblies and cups in the analysis of domestic production, capacity, and capacity utilization since the production of a tapered roller bearing set is usually only a minor assembly operation performed on cone assemblies and cups. Id. at A-27.

^{32/} Id. at A-27-A-28.

^{33/} Id. at A-27.

^{34/} Id.

^{35/} Id. at A-28.

^{36/} Id. at A-29.

^{37/} Id.

The number of workers producing tapered roller bearings declined from 7,506 in 1983 to 6,792 in 1986, or by 9.5 percent. ^{38/} Hours worked, wages paid, and total compensation also declined during the period of investigation. ^{39/}

Net sales of tapered roller bearings also increased from 1983 to 1984, but declined in 1985 and 1986. ^{40/} Although operating losses lessened during the period of investigation, the domestic industry operated profitably only in 1984. ^{41/}

On the basis of the record in these final investigations, we determine that the domestic tapered roller bearings industry is currently experiencing material injury.

Cumulation

The Commission is required to cumulatively assess the volume and effect of imports subject to investigation from two or more countries if the imports (1) compete with other imports and with the domestic like product, (2) are subject to investigation, and (3) are marketed within a reasonably coincident period. ^{42/} For purposes of reaching final determinations in the instant investigations, we cumulatively assessed the impact of imports from Hungary, the PRC, Romania, together with imports from Japan, Italy, and Yugoslavia.

^{38/} Id. at A-31-A-32.

^{39/} Id.

^{40/} Id. at A-32 and A-33.

^{41/} Id. at A-33.

^{42/} 19 U.S.C. § 1677(7)(C)(iv); H.R. Rep. No. 725, 98th Cong., 2nd Sess. 36-37 (1984).

As noted above, the imports from the six countries in question are all currently subject to investigation. ^{43/} The subject imports also have been marketed within a reasonably coincident period. ^{44/} The decision of whether or not to cumulate thus turns on the issue of whether there is competition among the imports themselves and competition between the imports and the domestic products.

The respondents oppose cumulation, arguing, *inter alia*, that differences in quality and/or product mix between imports from Hungary, the PRC, Romania, and Yugoslavia on the one hand, and those from Japan and Italy on the other, precludes cumulation of the latter with the former.

Although some quality differences do appear to exist, we find that they do not preclude cumulation. The principal quality differences identified by respondents relate to internal geometries and tolerances, the load carrying ability, the wear resistance, and life expectancy of their bearings. ^{45/} It

^{43/} See 52 Fed. Reg. 5841 (Feb. 26, 1987); 52 Fed. Reg. 11347 (Apr. 8, 1987). Timken's petition requested that antidumping duties be imposed on LTFV imports from all six countries. The Commission's preliminary investigations of those imports were conducted and concluded together. See 51 Fed. Reg. 31732 (Sept. 4, 1986); 51 Fed. Reg. 36874 (Oct. 16, 1986); Tapered Roller Bearings and Parts Thereof, and Certain Housings Incorporating Tapered Rollers, from Hungary, Italy, Japan, The People's Republic of China, Romania, and Yugoslavia, Invs. Nos. 731-TA-341 through 346 (Preliminary), USITC Pub. 1899 (Oct. 1986). The Commission's final investigations are being conducted on three different schedules only because Commerce extended its deadlines for issuing its preliminary and/or its final LTFV determinations with respect to each country. See 19 U.S.C. § 1673d(b)(2); 52 Fed. Reg. 5841 (Feb. 26, 1987); 52 Fed. Reg. 11347 (Apr. 8, 1987); 52 Fed. Reg. 11348 (Apr. 8, 1987).

^{44/} See Report at A-45-A-48.

^{45/} See Report at A-4, A-6, A-8, A-9, and A-54. Domestic bearings are "case hardened" which affects only the outer surfaces of the bearings and allows the bearing to better absorb the forces to which it is subject, while many of the imports are "through hardened" which results in a more brittle bearing that does not last as long.

does appear that many imports are not suitable for the high precision segment of the market. ^{46/} But in those applications where extremely precise tolerance and longer life of the bearing are not as important, imports are able to compete with domestic production. Those market segments are certain non-driving axles (utility trailers, mobile homes), conveyors, and in the aftermarket for replacement use. ^{47/ 48/} Domestic tapered roller bearings compete with imports from the six countries in question in the aforesaid segments of the market. ^{49/} The Hungarian, Chinese, Romanian, and Yugoslavian imports also compete with imports from Japanese and Italian bearings in those segments of the market. ^{50/} The domestic and imported tapered roller bearings have similar channels of distribution. ^{51/} And in the case of the inferior imports, there appear to be common channels of distribution. ^{52/}

^{46/} Id. at A-4, A-6, A-8-A-9, and A-54.

^{47/} Id. at A-20 and A-22, A-54-A-57.

^{48/} Since the quality of at least some of the inferior imports is acceptable for the end uses to which they are put, the facts and circumstances in the present investigations are distinguishable from those in Certain Welded Carbon Steel Pipes and Tubes from the People's Republic of China, Inv. No. 731-TA-292 (Final), in which the Commission declined to cumulatively assess the volume and effect of imports of Chinese pipe with imports of pipe from other countries, citing quality defects in the Chinese pipe, which rendered it unusable for its intended purposes. See USITC Pub. 1885 at 3 and 8-11 (Aug. 1986).

^{49/} Report at A-20, A-22, and A-54-A-57; Tr. at 148-150. See also the discussion in the Report concerning lost sales at A-61.

^{50/} Report at A-28, A-31, and A-73-A-78; Tr. at 148-150.

^{51/} Id. at A-24.

^{52/} Id. at A-18.

For those reasons, we have determined that there is sufficient competition among the imports from the six countries in question and between the imports and the domestic product for purposes of mandatory cumulation. ^{53/} The volume and effect of the imports from the subject countries accordingly will be cumulatively assessed.

Material injury by reason of unfairly traded imports

In determining whether the domestic industry is materially injured "by reason of" LTFV imports from Hungary, the PRC, and Romania, the Commission considers, among other factors, the volume of imports, the effect of imports on prices in the United States for the like product, and the impact of such imports on the relevant domestic industry. ^{54/}

We find that the large and stable volume and penetration of imports and increasing value at a time of declining shipments by the domestic industry, together with evidence of fairly consistent underselling by imports at a time of declining prices, demonstrates that the subject imports are a cause of material injury to the domestic industry.

^{53/} Commissioner Eckes notes that the volume of imports varies from country to country in these investigations. Some respondents argue against cumulation on the basis that the volume of imports from individual countries are de minimis, or relatively insignificant, and/or declining and thus are not a cause of material injury to the domestic industry. In addressing these contentions, he cites the discussion of the Court of International Trade in *USX Corp. v. United States*, 655 F. Supp. 487, 492-94 (Ct. Int'l Trade 1987) where the Court discusses the relevance of the "contributing effect test" to the analysis of the impact of imports on the domestic industry. In sum, the Court explains that the "factual connection" between imports and material injury is provided for by the "competition" test in the statutory provisions on cumulation. ^{54/} 19 U.S.C. § 1677(7)(B).

The market penetration of imports remained at approximately 20 percent throughout 1983-1986. ^{55/} The value of imports rose 37.8 percent from 1983-86. The market share by value also increased from 8 percent in 1983 to 10 percent in 1984. The market share by value dropped only slightly in 1985 to 9 percent but increased to 11 percent in 1986. ^{56/}

The pricing data obtained by the Commission reflect general price decreases from 1983 to 1986, and nearly universal underselling by the imports ^{57/} in every quarter in which pricing comparisons with the domestic product were possible. ^{58/} Further, information obtained from purchasers of the imported articles confirms that the imports compete with the domestic product and that imports were purchased because of their lower prices. The record also shows that prices are trending downward and have been insufficient to cover operating costs. ^{59/}

For the foregoing reasons, we determine that the domestic industry producing tapered roller bearings and parts thereof and certain housings incorporating tapered rollers is materially injured by reason of LTFV imports from Hungary, the PRC, and Romania.

^{55/} Commissioner Eckes and Commissioner Lodwick note that the statute does not require the Commission to find that imports are increasing, in order to reach an affirmative determination of material injury. In evaluating the volume of imports, the Commission may consider, in the alternative, whether the volume of imports is significant in absolute terms or relative to production or consumption in the United States. 19 U.S.C. § 1677(7)(C)(i).

^{56/} Report at Table 26.

^{57/} Except for certain Japanese tapered roller bearing cups.

^{58/} *Id.* at Tables 39-50.

^{59/} See generally *id.* at A-58-A-88.

Critical Circumstances

On May 8, 1987, Commerce determined that critical circumstances exist with regard to imports of tapered roller bearings from Romania. ^{60/} Thus, for those imports, the Commission must determine whether:

the material injury is by reason of massive imports . . . to an extent that, in order to prevent such material injury from recurring, it is necessary to impose [antidumping duties] retroactively on these imports. ^{61/}

An affirmative critical circumstances determination involves a finding that, absent retroactive relief, the massive imports that occurred after the case was filed but before Commerce made its preliminary determination will prolong or will cause a recurrence of material injury to the domestic industry. The purpose of the provision is to provide relief from a surge of imports that occurred immediately prior to the suspension of liquidation and to deter importers from attempting to circumvent the antidumping laws by massive shipments immediately after the filing of an antidumping petition. ^{62/}

For the five-month period between the date of filing of the petition and Commerce's preliminary LTFV finding, imports from Romania were 127 percent higher compared with imports during the 5-month period preceding the date of filing of the petition. However, imports during the period September 1986 to January 1987 were only 3.7 percent higher when compared with those imports during September 1985 to January 1986. Moreover, there was a net 24 percent decline in total 1986 imports from Romania compared with 1985. ^{63/}

^{60/} 52 Fed. Reg. 17438.

^{61/} 19 U.S.C. § 1673d(b)(4)(A).

^{62/} H.R. Rep. No. 317, 96th Cong., 1st Sess. 63 (1979).

^{63/} See the tabulation in the Report at A-57.

Commissioner Eckes and Commissioner Lodwick note that based on monthly import data since January 1985, the monthly volume of imports during the period under consideration corresponds to historical monthly import levels. Based on this and the other data on import volume and trends, they do not find a pattern of import volume which indicates an attempt to circumvent the antidumping laws.

Commissioner Rohr notes that the injury findings required in the context of critical circumstances determinations are made on an individual country basis and that the purpose of the determination is "to prevent material injury from recurring." ^{64/} The courts have stated that we are "to determine whether the extent of massive imports will carry the injury already found to have occurred, beyond its normal duration" ^{65/} The statute sets forth no specific factors for the Commission to consider. Commissioner Rohr believes that two obviously important factors are the volumes of imports and of import inventories as these relate to market conditions.

He notes that the volume of Romanian imports did significantly increase in the period during which retroactive duties would be assessed in the event of an affirmative finding over the preceding period. However, this volume remained small in relation to the total market and was consistent with the traditional pattern of Romanian imports. Further, he notes that import inventories in 1986 were 15 percent lower than those in 1985. ^{66/} Finally,

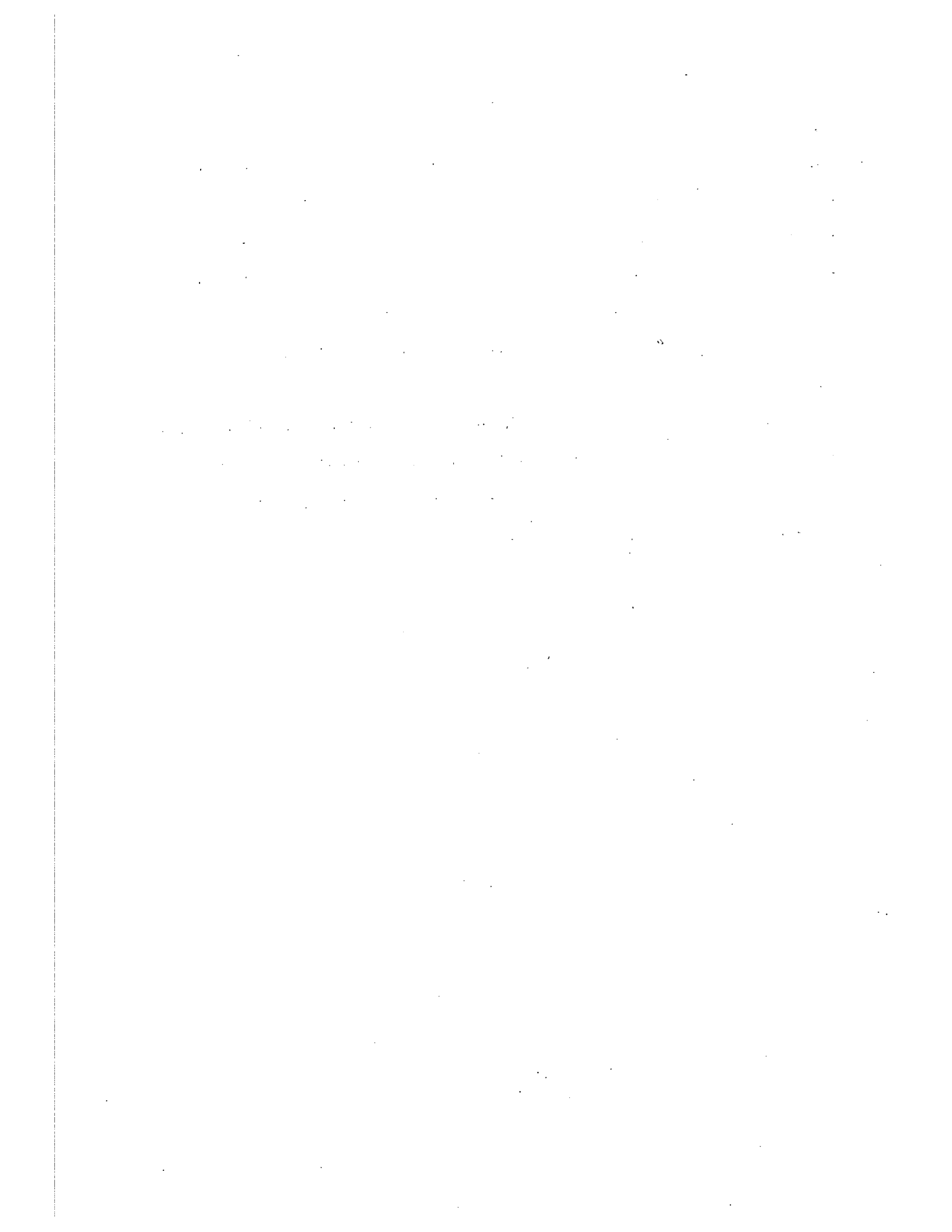
^{64/} 19 U.S.C. § 1673d(b)(4)(A).

^{65/} ICC Industries, Inc. v. United States, 632 F. Supp. 36, 41 (Ct. Int'l Trade 1986), affirmed, 812 F.2d 694 (Fed. Cir. 1987).

^{66/} As a percentage of Romanian imports, import inventories did significantly increase. This is a less significant indicator, however, than looking at imports in the context of the overall market, which declined only 5 percent or even of total domestic shipments which declined only 10 percent.

he notes that the parties provided no other reasonable basis for finding that these imports were having the requisite injurious effect. He cannot conclude from this information that the massive Romanian imports found to exist by the Department of Commerce were made in such a manner as to substantially lessen or delay the impact of the duties to be assessed on imports as a result of this investigation. They will not carry the injury "beyond its normal duration."

Commissioners Eckes, Lodwick, and Rohr find that the material injury is not by reason of massive imports from Romania to an extent that, in order to prevent such material injury from recurring, it is necessary to impose antidumping duties retroactively on those imports.



VIEWS OF CHAIRMAN LIEBELER

Inv. Nos. 731-TA-341, 344, 345(Final)
Tapered Roller Bearings and Parts Thereof, and Certain
Housings Incorporating Tapered Rollers, from Hungary, the
People's Republic of China, and Romania

I determine that an industry in the United States is not materially injured, or threatened with material injury, by reason of imports of tapered roller bearings and parts thereof, and certain housings incorporating tapered rollers, from Hungary, the People's Republic of China, and Romania which the Department of Commerce has determined are being sold at less than fair value.¹ I concur with the majority in its discussion of related parties and definition of the domestic industry. I also concur with the majority in its discussion of like product, albeit with the same reservations advanced by Vice Chairman Brunsdale in her opinion on pages one to three. I concur with the opinion of Vice Chairman Brunsdale with respect to cumulation and condition of the

1

As the domestic industry producing tapered roller bearings is well established, material retardation is not an issue in this investigation, and will not be discussed further.

domestic industry. This opinion presents my views with respect to causation.

Material Injury by Reason of Imports

In order for a domestic industry to prevail in a final investigation, the Commission must determine that the dumped or subsidized imports cause or threaten to cause material injury to the domestic industry producing the like product. First, the Commission must determine whether the domestic industry producing the like product is materially injured or is threatened with material injury. Second, the Commission must determine whether any injury or threat thereof is by reason of the dumped or subsidized imports. Only if the Commission answers both questions in the affirmative, will it make an affirmative determination in the investigation.

Before analyzing the data, however, the first question is whether the statute is clear or whether one must resort to the legislative history in order to interpret the relevant sections of the antidumping law. The accepted rule of statutory construction is that a statute, clear and unambiguous on its face, need not and

cannot be interpreted using secondary sources. Only statutes that are of doubtful meaning are subject to such statutory interpretation.²

The statutory language used for both parts of the two-part analysis is ambiguous. "Material injury" is defined as "harm which is not inconsequential, immaterial, or unimportant."³ This definition leaves unclear what is meant by harm. As for the causation test, "by reason of" lends itself to no easy interpretation, and has been the subject of much debate by past and present commissioners. Clearly, well-informed persons may differ as to the interpretation of the causation and material injury sections of title VII. Therefore, the legislative history becomes helpful in interpreting title VII.

The ambiguity arises in part because it is clear that the presence in the United States of additional foreign supply will always make the domestic industry worse off. Any time a foreign producer exports products to the United

2

C. Sands, Sutherland Statutory Construction, § 45.02 (4th ed. 1985).

3

19 U.S.C. § 1977(7)(A) (1980).

States, the increase in supply, ceteris paribus, must result in a lower price of the product than would otherwise prevail. If a downward effect on price, accompanied by a Department of Commerce dumping or subsidy finding and a Commission finding that financial indicators were down were all that were required for an affirmative determination, there would be no need to inquire further into causation.

But the legislative history shows that the mere presence of LTFV imports is not sufficient to establish causation. In the legislative history to the Trade Agreements Acts of 1979, Congress stated:

[T]he ITC will consider information which indicates that harm is caused by factors other⁴ than the less-than-fair-value imports.

The Finance Committee emphasized the need for an exhaustive causation analysis, stating, "the Commission must satisfy itself that, in light of all the information presented, there is a sufficient causal link between the less-than-fair-value imports and the requisite injury."⁵

⁴ Report on the Trade Agreements Act of 1979, S. Rep. No. 249, 96th Cong. 1st Sess. 75 (1979).

⁵ Id.

The Senate Finance Committee acknowledged that the causation analysis would not be easy: "The determination of the ITC with respect to causation, is under current law, and will be, under section 735, complex and difficult, and is matter for the judgment of the ITC."⁶ Since the domestic industry is no doubt worse off by the presence of any imports (whether LTFV or fairly traded) and Congress has directed that this is not enough upon which to base an affirmative determination, the Commission must delve further to find what condition Congress has attempted to remedy.

In the legislative history to the 1974 Act, the Senate Finance Committee stated:

This Act is not a 'protectionist' statute designed to bar or restrict U.S. imports; rather, it is a statute designed to free U.S. imports from unfair price discrimination practices. * * * The Antidumping Act is designed to discourage and prevent foreign suppliers from using unfair price discrimination practices to the detriment of a

⁷
United States industry.

6

Id.

7

Trade Reform Act of 1974, S. Rep. 1298, 93rd Cong. 2d Sess. 179.

Thus, the focus of the analysis must be on what constitutes unfair price discrimination and what harm results therefrom:

[T]he Antidumping Act does not proscribe transactions which involve selling an imported product at a price which is not lower than that needed to make the product competitive in the U.S. market, even though the price of the imported product is lower than its home market⁸ price.

This "difficult and complex" judgment by the Commission is aided greatly by the use of economic and financial analysis. One of the most important assumptions of traditional microeconomic theory is that firms attempt to maximize profits.⁹ Congress was obviously familiar with the economist's tools: "[I]mporters as prudent businessmen dealing fairly would be interested in maximizing profits by selling at prices as high as the U.S. market would bear."¹⁰

⁸
Id.

⁹
See, e.g., P. Samuelson & W. Nordhaus, Economics 42-45 (12th ed. 1985); W. Nicholson, Intermediate Microeconomics and Its Application 7 (3rd ed. 1983).

¹⁰
Trade Reform Act of 1974, S. Rep. 1298, 93rd Cong. 2d Sess. 179.

An assertion of unfair price discrimination should be accompanied by a factual record that can support such a conclusion. In accord with economic theory and the legislative history, foreign firms should be presumed to behave rationally. Therefore, if the factual setting in which the unfair imports occur does not support any gain to be had by unfair price discrimination, it is reasonable to conclude that any injury or threat of injury to the domestic industry is not "by reason of" such imports.

In many cases unfair price discrimination by a competitor would be irrational. In general, it is not rational to charge a price below that necessary to sell one's product. In certain circumstances, a firm may try to capture a sufficient market share to be able to raise its price in the future. To move from a position where the firm has no market power to a position where the firm has such power, the firm may lower its price below that which is necessary to meet competition. It is this condition which Congress must have meant when it charged us "to discourage and prevent foreign suppliers from using unfair price discrimination practices to the detriment of a United States industry."¹¹

11

Trade Reform Act of 1974, S. Rep. 1298, 93rd Cong. 2d Sess. 179.

In Certain Red Raspberries from Canada, I set forth a framework for examining what factual setting would merit an affirmative finding under the law interpreted in light of the cited legislative history.¹²

The stronger the evidence of the following . . . the more likely that an affirmative determination will be made: (1) large and increasing market share, (2) high dumping margins, (3) homogeneous products, (4) declining prices and (5) barriers to entry to other foreign producers (low elasticity of supply of other imports).¹³

The statute requires the Commission to examine the volume of imports, the effect of imports on prices, and the general impact of imports on domestic producers.¹⁴ The legislative history provides some guidance for applying these criteria. The factors incorporate both the statutory criteria and the guidance provided by the legislative history. Each of these factors is evaluated in turn.

12

Inv. No. 731-TA-196 (Final), USITC Pub. 1680, at 11-19 (1985) (Additional Views of Vice Chairman Liebeler).

13

Id. at 16.

14

19 U.S.C. § 1677(7)(B)-(C) (1980 & cum. supp. 1985).

Causation analysis

Examining import penetration data is relevant because unfair price discrimination has as its goal, and cannot take place in the absence of, market power. Imports of tapered roller bearings from Hungary, the People's Republic of China (PRC), Romania and Yugoslavia have been small, whether measured on a quantity or a value

¹⁵ basis. On a cumulated quantity basis, these imports represented 4.3 percent of U.S. consumption in 1983, 3.6 percent in 1984, 5.2 percent in 1985, and 4.2 percent in 1986.

¹⁶ On a cumulated value basis, imports from these countries constituted 1.2 percent of U.S. consumption in 1983, 1.0 percent in 1984, 1.4 percent in 1985, and 1.2 percent in 1986.

¹⁷ Thus, imports from Hungary, the PRC, Romania, and Yugoslavia account for a very small market share. Consequently, the first indicator suggests that unfair price discrimination conditions are not likely to exist.

15

I have determined to cumulate imports from Hungary, the PRC, Romania and Yugoslavia. See Opinion of Vice Chairman Brunsdale at pp. 43-53 in which I concur.

16

Report, at Table 26.

17

Id.

The second factor is a high margin of dumping or subsidy. The higher the margin, ceteris paribus, the more likely it is that the product is being sold below the competitive price¹⁸ and the more likely it is that the domestic producers will be adversely affected. The Department of Commerce has calculated the percentage dumping margin for imported tapered roller bearings from Hungary to be 7.42 percent, the margin for imports from the PRC to be 0.97 percent, and the margin for Romanian imports to be 8.70 percent.¹⁹ The preliminary dumping margin for imported tapered roller bearings from Yugoslavia is 33.61 percent.²⁰ These LTFV margins are low to moderate, and basically inconsistent with a finding of unfair price discrimination.

The third factor is the homogeneity of the products. The more homogeneous the products, the greater will be the

18

See text accompanying note 7, supra.

19

Report at A-13. A weighted dumping margin by quantity will be closer to the margins for Romania and Hungary given the higher amounts of imports from those countries. Report at Table 26.

20

Report at App. C.

effect of any allegedly unfair practice on domestic producers of the like product. While tapered roller bearings from Hungary, the PRC, Romania, and Yugoslavia do meet minimal professional standards, there is considerable evidence that roller bearings from these countries are inferior in quality to American bearings and to bearings

made in other countries.²¹ Among other things, bearings from Hungary, the PRC, Romania, and Yugoslavia generally have lower tolerances and fatigue life and less precise geometries than their counterparts from America and other

countries.²² As a consequence, sales of these lower quality bearings are generally restricted to the low-end, less-demanding segments of the tapered roller bearing

market.²³ There also appear to be some distinct differences in the level of services provided by importers/distributors of bearings from Hungary, the PRC, Romania, and Yugoslavia and those provided by U.S. producers and importers/distributors from other countries, with the importers/distributors of bearings from the

²¹ Report at A-54 to A-57.

²² Report at A-54.

²³ Id.

countries under investigation offering no special customer services.²⁴ I thus find that imported tapered roller bearings from Hungary, the PRC, Romania, and Yugoslavia are generally not close substitutes for domestic products.

As to the fourth factor, evidence of declining domestic prices, ceteris paribus, might indicate that domestic producers were lowering their prices to maintain market share. For the products investigated, domestic prices have generally decreased from 1984 to 1986.²⁵ Producer prices decreased for eight of the twelve available price series, and price declines for these eight series ranged from 6 percent to 27 percent.²⁶ Thus, the price data are not inconsistent with a finding of unfair price discrimination.

The fifth factor in the five factor test is barriers to entry (foreign supply elasticity). If there are barriers to entry (or low foreign elasticity of supply) it

²⁴ Report at A-57.

²⁵ Report at Tables 27 through 32.

²⁶ Report at A-59 and A-60.

is more likely that a producer can gain market power. Imports from Hungary, the PRC, Romania, and Yugoslavia account for a small minority of U.S. imports of tapered roller bearings and parts thereof.²⁷ Japanese imports by far dominate the imported tapered roller bearing market, accounting, on a quantity basis, for well over ten percent of apparent U.S. consumption--more than twice the amount imported from the countries in question.²⁸

However, these imports, in contrast to the above-referenced cumulated imports, are at the high quality end of the market. Moreover, they are currently subject to a preliminary affirmative dumping determination by the Department of Commerce.²⁹ It is thus difficult to assess the precise degree to which imports from non-cumulated countries constitute a restraint on market power.

These factors must be balanced in each case to reach a sound determination. While domestic producer prices

²⁷
Report at Table 26.

²⁸
Id.

²⁹
Report at A-132

have been declining, and it is difficult to precisely assess barriers to entry, all other factors clearly support a negative determination on the issue of material injury. Import penetration is very small, LTFV margins are low to moderate, and the products are not homogeneous. Thus, there is no indication of material injury by reason of dumped imports of tapered roller bearings and parts thereof and certain housings incorporating tapered rollers from Hungary, the PRC, and Romania.

Threat of material injury

In determining whether an industry in the United States is threatened with material injury by reason of imports the Commission takes into consideration various factors including the rate of increase of the subject imports, the rate of increase in U.S. market penetration by such imports, increases of imports held in inventory in the United States, and the capacity of producers in the exporting countries to generate exports. ³⁰ For the

30

See 19 U.S.C. §1677(7)(F).

most recent annual period for which there is available data, imports of tapered roller bearings from the countries in question fell from 14,212,000 units to

11,255,000 units, a decrease of over 20 percent.³¹

Indeed, imports from these countries stood, in the latest reported period, at their lowest level in four years.³²

In addition, import penetration from these countries, whether measured on a quantity or value basis, also declined during the latest reported period.³³ These figures clearly cut against a determination that the domestic industry is threatened with material injury by reason of these imports.

Other data also support this conclusion. To the extent such figures are available, inventories from the countries in question appear to be essentially stable or declining.³⁴ Similarly, there do not appear to be any sharp increases by these countries in shipments of tapered

³¹ Report at Table 26.

³² Id.

³³ Id.

³⁴ Report at Table 20.

roller bearings to the United States, or in the production
of said bearings.³⁵ I thus find that the domestic
industry is not threatened with material injury by reason
of imports of tapered roller bearings and parts thereof
and certain housings incorporating tapered rollers from
Hungary, the PRC, and Romania.

Conclusion

Therefore, I conclude that an industry in the United States is not materially injured or threatened with material injury by reason of dumped imports of tapered roller bearings and parts thereof, and certain housings incorporating tapered rollers from Hungary, the PRC, and Romania.

³⁵
Report at Table 21.

DISSENTING VIEWS OF
VICE CHAIRMAN ANNE E. BRUNSDALE

Tapered Roller Bearings and Parts Thereof
and Certain Housings Incorporating Tapered Rollers
from Hungary, The People's Republic of China, and Romania

Investigations 731-TA-341, 344, and 345 (Final)

June 5, 1987

I determine that the domestic tapered roller bearing industry is not materially injured or threatened with material injury by reason of less-than-fair-value (dumped) imports from Hungary, the People's Republic of China (PRC), and Romania. With some reservations, which I note below, I concur with the majority's decision on like product and definition of the industry. I find the evidence regarding injury to the domestic industry to be equivocal, as I discuss below, but I assume arguendo for purposes of this opinion that the domestic industry is materially injured. I part ways with the majority principally in its conclusion that material injury to the domestic industry has been caused by the dumped imports at issue in this case.

Definition of the Like Product and Domestic Industry

I agree with the majority's conclusion that the like product in

these investigations consists of all tapered roller bearings and parts thereof, finished or unfinished; flange, take-up, cartridge, and hanger units incorporating roller bearings; and tapered roller housings (except pillow blocks) incorporating tapered rollers, with or without spindles, whether or not for automotive use. I also agree with the majority here, and with the unanimous view of the Commission in the preliminary investigation in this case, that there is a single domestic industry for that like product and that the industry includes all domestic producers. Therefore I agree with the majority that the relevant domestic industry consists of the ten domestic producers of tapered roller bearings and parts thereof and certain housings incorporating tapered rollers.

As should become more apparent in my discussion of the cumulation issue, I disagree with the majority's conclusion that the foregoing definition of the like product is supported by the evidence regarding the uses and interchangeability of imported and domestic roller bearings. Of the five factors traditionally relied upon by the Commission in making the like product determination,¹ several are not satisfied in this case. As I

¹

These factors are generally identified as (1) the
(Footnote continued on next page)

discuss below, there is significant evidence that the quality of the bearings imported from Hungary, the PRC, Romania, and Yugoslavia is so low that these bearings are not viewed or used by customers as reasonably interchangeable substitutes for the higher quality domestic product. Indeed, this evidence is so strong that I would find it difficult to agree with the majority's definition of the like product if it were not for the² controlling language of the statute.

As noted by the majority, in cases like this one where there is no identical domestic substitute, the statute directs that we examine the domestic production of the product most similar to

(Footnote continued from previous page)
 physical appearance of each product; (2) the uses; (3) whether the products are interchangeable; (4) customer perceptions of the articles; (5) channels of distribution; and (6) whether there are common manufacturing facilities and production employees. Each of these factors is considered on a case-by-case basis. As I have stated in prior opinions, all of these factors address the essential question of product substitutability from the standpoint of both the producers and consumers of the products in question. See, e.g., Certain Copier Toner from Japan, Inv. 731-TA-373 (Preliminary), USITC Pub. 1960 at 25 (March 1987) (Concurring views of Chairman Susan Liebler and Vice Chairman Anne E. Brunsdale).

2

See 19 U.S.C. 1677(10). The statute defines "like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation...."

the imported article.³ The domestic products most similar to the low-quality roller bearings imported from the three countries in this investigation are the high-quality roller bearings produced by the domestic industry.

Condition of Industry

In determining the condition of the domestic industry, the Commission considers, among other factors, domestic consumption, U.S. production, productive capacity, capacity utilization, inventories, shipments, employment, and financial performance.⁴ Apparent consumption of tapered roller bearings increased from 1980 to 1981, declined from 1981 to 1983, increased from 1983 to 1984, and declined from 1984 to 1986.⁵ Domestic production has generally paralleled consumption, with 193,520 tapered roller bearings being produced in 1983, 236,249 in 1984, 210,268 in 1985, and 180,569 in 1986.⁶ Domestic production thus increased from 1983 to 1984, but has declined since then, although 1986 production was only 6.7 percent lower

³ See majority opinion at 7, n. 17.

⁴ 19 U.S.C. 1677(7)(C)(iii).

⁵ See Staff Report at A-25 (Table 6), A-23 (Figure 3).

⁶ See Staff Report at A-28 (Table 7).

than production in 1983.⁷ U.S. productive capacity, however, remained generally stable during the 1983-1986 period, while capacity utilization jumped sharply from the 50 percent range in 1983 to over 65 percent in 1984,⁸ before settling back to around the 50 percent range in 1986.⁹

Data for domestic shipments and inventories also tend to parallel consumption and production statistics. Shipments increased from 1983 to 1984 before declining during 1985 and 1986.⁹ Shipments were, on a quantity basis, 164,249 in 1986 as compared to 190,391 in 1983.¹⁰ End-of-period inventories followed the same pattern, increasing from 1983 to 1984, and then declining.¹¹ The volume of inventories in 1986 was 0.4 percent higher than the level in 1983.¹²

With respect to employment and wages, the number of production and related workers employed in the manufacture of tapered roller bearings declined from 7,506 workers to 6,792

7

Id.

8

Id.

9

See Staff Report at A-29 (Table 8).

10

Id.

11

See Staff Report at A-30 (Table 9).

12

Id.

workers from 1983 to 1986.¹³ This represented a decline of about 9.5 percent. Average hourly wages fell from \$12.88 to \$12.45 or about 3.3 percent, although average total hourly compensation fell somewhat more sharply.¹⁴

The financial performance of tapered roller bearing operations of the major U.S. producers was, not unexpectedly, strongest in 1984. The industry experienced operating losses in 1983, 1985, and 1986.¹⁵ Losses as a ratio to net sales,¹⁶ however, have declined in recent years.

Another important indicator of industry financial health is the stock price of the Timken Company, which produces a majority of all U.S. tapered roller bearings. Timken's stock price has been relatively flat from 1982 to 1987, a period during which broader stock market indices have more than doubled.¹⁷ Nevertheless, on May 12, 1987, the date of the hearing in this case, Timken stock closed at \$60.75 per share, its highest price

¹³ See Staff Report at A-32 (Table 11).

¹⁴ Id.

¹⁵ See Staff Report at A-34.

¹⁶ Id.

¹⁷ See Staff Report at A-37.

in three years.¹⁸ Moreover, despite its domination of the U.S. tapered roller bearing industry, Timken is more than just a bearing company. Timken is also a steel producer, and this product line has generally had significant losses during the past few years.¹⁹ In addition, steel related companies have been among the weaker performing equity groups in recent years.²⁰ Thus, while Timken's relatively depressed stock price is one indicator of possible weakness in the tapered roller bearing industry, it is far from a conclusive one.

In sum, there is evidence that the tapered roller bearing industry experienced some difficulties during the period under investigation. The evidence regarding material injury, however, is not entirely conclusive. Assuming arguendo that such injury does exist, I proceed to analyze the issue of causation.

Cumulation for Assessing Material Injury

Section 771(7)(C)(iv) of the Tariff Act of 1930 requires that the Commission cumulatively assess the volume and price effects of imports when certain specific criteria are met:

18

Id.

19

Id.

20

Id.

[T]he Commission shall cumulatively assess the volume and effect of imports from two or more countries of like products subject to investigation if such imports compete with each other and with like products of the domestic industry in the United States market.

21

The purpose of this provision, added by Congress in 1984, was to codify and mandate the Commission's previously discretionary

practice of applying cumulation on a case-by-case basis.

22

Cumulation is intended to allow the Commission to assess injury to domestic industry correctly in situations where the alleged harm is caused by the combined effect of unfair imports from many sources operating in the market.

Since the cumulation provision was adopted, the Commission has interpreted it as requiring that imports from different countries be cumulated if they (i) compete with each other and with the domestic like products and (ii) are subject to investigation at the same time. Each of these requirements

23

21
Trade and Tariff Act of 1984, Pub. L. No. 98-573, 98 Stat. 2948, 3033 (codified at 19 U.S.C. 1677(7)(C)(iv)).

22
See generally Mock, Cumulation of Import Statistics in Injury Investigations before the International Trade Commission, 7 Nw. J. of L. & Bus. 433, 439-40 (1986).

23
See Certain Carbon Steel Products from Austria,
(Footnote continued on next page)

flows logically from the purpose for which Congress designed the cumulation doctrine. The first condition exists because it is unlikely that imports are combining to "hammer" domestic industry if they are not closely competitive with each other and the domestic products. Since Title VII requires that we only assess injury to domestic industry from unfairly traded imports, it is entirely appropriate as a separate requirement that we only cumulate imports which are subject to dumping or countervailing duty proceedings.

Petitioners in this case urge the Commission to cumulate LTFV imports from Hungary, the People's Republic of China, and Romania with LTFV imports of tapered roller bearings from Japan, Italy, and Yugoslavia.²⁴ It is indisputable that bearings from all of

(Footnote continued from previous page)
Czechoslovakia, East Germany, Hungary, Norway, Poland, Romania, Sweden, and Venezuela, Invs. 731-TA-213-217, 219, 221-226, and 228-235 (Preliminary), USITC Pub. No. 1642 at 13 (February 1985); see also 19 U.S.C. 1677(7)(C)(iv), H.R. Rep. No. 1156, 98th Cong., 2d Sess. 173 (1984).

24

See Petitioners Prehearing Brief at 53-56. The Department of Commerce made preliminary determinations that imports from Japan, Italy, and Yugoslavia are being sold at LTFV. See Tapered Roller Bearings and Parts Thereof, Finished or Unfinished From Japan; Preliminary Determination at Less Than Fair Value, 52 Fed. Reg. 9,906 (ITA 1987); Tapered Roller Bearings and Parts Thereof, Finished or Unfinished, from Italy; Preliminary Determination of Sales
 (Footnote continued on next page)

these countries were in the domestic market at the same time and that they are all now subject to investigation. However, respondents argue that imports of tapered roller bearings from the Communist countries should not be cumulated with those from Japan or Italy because tapered roller bearings from all of the various importing countries do not sufficiently "compete."²⁵ Because the facts of these final investigations show that the imports from the Communist countries are not sufficiently competitive with imports from Japan and Italy, I agree with the respondents that their imports should not be cumulated with those from Japan or Italy.²⁶

(Footnote continued from previous page)
 at Less Than Fair Value, 52 Fed. Reg. 3,835 (ITA 1987);
 Tapered Roller Bearings and Parts Thereof, Finished or
 Unfinished, from Yugoslavia; Preliminary Determination of
 Sales at Less Than Fair Value, 52 Fed. Reg. 3,640 (ITA 1987).

25

See, e.g., Prehearing Brief of Magyar Gordulocsopagy Muvek at 14; Prehearing Brief of China National Machinery & Equipment Import & Export Corporation at 7.

26

Petitioners contend that the question of whether imports "compete" for purposes of possible cumulation is the same as the "like product" inquiry for purposes of defining the relevant domestic industry. See Petitioners brief at 56. The Commission has never agreed with this view although it has been considered in previous cases. See, e.g., Welded Carbon Steel Pipe and Tube from Yugoslavia, Turkey, India, and Taiwan, Invs. 701-TA-251, 252 and 253 (Preliminary) and 731-TA-271, 272, 273, and 274 (Preliminary), USITC Pub. 1742
 (Footnote continued on next page)

To determine which imports sufficiently compete with one another for purposes of applying the cumulation provision of the law, the Commission traditionally has considered a number of factors including the factor that I find most helpful:

the degree of fungibility between imports from different countries and between imports and the domestic like product, including consideration of specific customer requirements and other quality-related questions.

This factor is among the factors identified by the Commission in an early decision on this subject, Certain Carbon Steel Products from Austria, Czechoslovakia, East Germany, Hungary, Norway,

27

Poland, Romania, Sweden, and Venezuela.

(Footnote continued from previous page)
 at 12, n. 28 (August 1985); Oil Country Tubular Goods from Austria, Romania and Venezuela, Invs. 701-TA-240 and 241 (Preliminary) and 731-TA-249-251 (Preliminary), USITC Pub. 1679 at 9 (April 1985). The one case supporting this point of view, American Grape Growers Alliance v. United States, 615 F. Supp. 603 (CIT 1985), was overruled by the Court of Appeals for the Federal Circuit in American Lamb Co. v. United States, 785 F.2d 994 (Fed. Cir. 1986). Moreover, the Court's discussion of this issue in the Grape Growers case was strictly in the context of the Commission's consideration of cumulation at the preliminary phase of the investigation, not the final phase where, as here, the facts have been fully developed. As the court stated: "...the decision not to cumulate was erroneous because it depended on a depth of analysis and specificity of information which is unreasonable to expect, and unlawful to demand, in the preliminary phase of the investigation." 615 F. Supp. at 605.

27

Invs. 731-TA-213-217, 219, 221-226, and 228-235 (Preliminary), USITC Pub. No. 1642 at 13 (February 1985).

The degree of "fungibility" refers to the extent to which there is a high degree of substitutability between the products under consideration. Obviously if imports are not highly substitutable among themselves and with the domestic products under consideration, it is not reasonable to assume that their combined impact on the domestic industry can be fairly assessed by simply summing them as the Commission has traditionally done when it applies the cumulation provision.

When imports from two or more countries are close substitutes, it is logical to assume that they will have the same kind of impact on the domestic industry. In such a circumstance it makes sense to simply add them together to determine their combined effect on the domestic industry. However, if a high degree of substitutability is not present, imports from different countries will have different impacts on the domestic industry producing similar products. In such a case it makes no sense to simply add the imports together to assess their combined effect. As the degree of substitutability between the imports under consideration becomes lower, the difficulty of correctly "cumulating" their volume and price effects becomes so great that it far exceeds the approach reasonably contemplated by Congress when it mandated that the Commission cumulate imports in certain cases.

28

28

In such a case it might be appropriate to assess separately the impact of imports in light of the impact of other unfairly traded imports even though cumulation is not appropriate.

To determine whether products are close substitutes, the Commission considers the ability of the products to serve the same end-users in the market for the like product.²⁹ Factors to consider include whether the goods are in fact sold to the same end-users, whether there are material differences in customer requirements, and whether there are quality differences that would cause customers to view the products as being materially different.³⁰

There is substantial evidence that the quality of tapered roller bearings from the Communist countries is so much lower than the quality of tapered roller bearings from Japan that customers in the overall marketplace view them as substantially different and not highly substitutable products. While there is not a great deal of evidence at this time regarding the quality or uses of Italian bearings, the evidence now in the record suggests most strongly that Italian bearings are of the same high

29

Certain Malleable Cast-Iron Pipe Fittings from Japan and Thailand, Invs. 731-TA-347 and 348 (Preliminary), USITC Pub. No. 1900 at 8-9 (October 1986).

30

For a discussion of these issues, see Certain Cast-Iron Pipe Fittings from Brazil, Korea, and Taiwan, Invs. 731-TA-278-281 (Preliminary) USITC Pub. No. 1753 at 9-10 (September 1985).

quality as their American and Japanese counterparts. ³¹ As noted in the staff report, tapered roller bearings from Hungary, the People's Republic of China, Yugoslavia, and Romania are generally made of carbon steel and are "through hardened" instead of "case hardened," which makes them less able to absorb shock and less wear-resistant. ³² Overall, the imports from these four countries have lower tolerances and a shorter fatigue life than tapered roller bearings from the United States, Japan, and ³³ Italy.

Not surprisingly under these circumstances, the imports from the Communist countries are sold almost entirely into the segments of the marketplace with the least demanding applications

31

See Staff Report at A-54-55, A-56-57. Importers of tapered roller bearings noted that bearings from the Communist countries are not engineered as well as Italian bearings, and customers show a preference for Italian bearings. They also stated that the quality of Italian bearings is more consistent. Id.

32

See Staff Report at A-8-9 (for a discussion of the process of "through hardening"), A-54 (for the statement that bearings from these Communist countries are through hardened), and A-131-133 for the industry's perception of the differences in quality between case-hardened and through-hardened bearings.

33

Id. at A-54.

34

-- the so-called "low-end" of the bearing marketplace.

According to the staff report, about 75 percent of the U.S. imports from Hungary, the PRC, Romania, and Yugoslavia are sold in the non-driving axle market, and about 85 percent of the consumption in that market is accounted for by imports from those countries.³⁵ Less than 1 percent of shipments by U.S. producers and less than 10 percent of shipments by Japanese producers were into market segments accounting for around three-quarters of the shipments from Hungary, the PRC, Romania, and Yugoslavia.³⁶ There is some overlap between the customers for bearings from the Communist countries on the one hand and Japan, Italy, and the United States on the other,³⁷ but the evidence seems clear that the vast majority of the bearings from these groups of countries are put to different uses.

Recognition of significant differences in quality between the bearings produced by the two different groups of countries

34

Id. at A-20 and A-22 (Tables 4 and 5); see also id. at A-54.

35

Id.

36

See id. at A-20 (Table 4).

37

For example, it appears that both groups make some sales into the "aftermarket" market segment. See id. at A-20 (Table 4).

was noted among respondents to questionnaires from the Commission. Importers of bearings from the low-end producing countries noted that customers do not accept tapered roller bearings from these countries as widely as products from U.S.,³⁸ Italian, and Japanese producers. Importers of the low-end products also noted that they concentrate their sales efforts in the low-end of the market because tapered roller bearings from the Communist countries are inferior to U.S., Italian, and Japanese products, and because bearings from the Communist countries do not meet the quality specifications of purchasers in the more demanding segments of the market.³⁹ While there were a few fans of the lower-quality products, many of the customers surveyed by the Commission attested to the lower quality of the Hungarian, Chinese, Romanian, and Yugoslavian bearings.⁴⁰

Appendix D in the Staff Report contains many documented examples of material differences in quality between the bearings under consideration. In fact, a representative of one U.S. producer candidly admitted to the Commission staff that the bearings from the Communist country producers were of very low

38

See Staff Report at A-73-A-74.

39

See id. at A-54.

40

See id. at A-55-A-57.

quality and that the industry did not consider them to be competitors of the U.S.- and Japanese-made products.⁴¹

The difference in quality proved by the evidence in this case is not a superficial distinction. I am persuaded by the clear preponderance of the evidence that bearings from all of the countries now under investigation are not close substitutes among themselves or with the great majority of the domestic products.

There is a material difference between the bearings from Hungary, the PRC, Yugoslavia, and Romania and the bearings produced by U.S., Italian, and Japanese producers. The products of the two groups of countries are not sufficiently close substitutes to support the cumulation of all imports in the analysis of the causation of potential injury in this case.⁴² Accordingly, for purposes of assessing causation of material injury in these investigations, I cumulate the imports of Hungary, the People's Republic of China, Romania, and Yugoslavia, but not the imports of Japan or Italy.

41

See *id.* at A-55. The actual text of the referenced statement is confidential.

42

Both Japanese and Italian sellers offer a wide range of engineering and testing services to purchasers of their products. These services are not similarly available from sellers of bearings from the Communist countries. This difference in availability of service is yet one further way in which the marketplace does not view all bearings as close substitutes.

Causation Analysis: Material Injury by Reason of LTFV Imports:

Material Injury. To analyze the effect of dumped imports on the domestic industry, it is necessary to consider, among other key factors, the import penetration ratio for the dumped imports and the dumping margin reported by the Department of Commerce.⁴³

Dumped imports from the four cumulated countries, Hungary, the PRC, Romania, and Yugoslavia, were a relatively tiny part of domestic consumption throughout the period of investigation. On the basis of quantity, the share of dumped imports from these four countries was only 3.8 percent in 1984, 5.0 percent in 1985, and 4.3 percent in 1986.⁴⁴ On the basis of value, the share of dumped imports from these four countries was only 1.0 percent in 1984, 1.4 percent in 1985, and 1.2 percent in 1986.⁴⁵

The weighted average dumping margins for these four countries were also low. Final margins were 7.42 percent for

43

For a discussion of the role of import penetration ratios and dumping margins in assessing harm to a domestic industry, see Memorandum from the Office of Economics, EC-J-010 (January 7, 1986), at 29-31.

44

Staff Report at A-53 (Table 26).

45

Id.

⁴⁶ Hungary, 0.97 percent for the PRC, ⁴⁷ and 8.7 percent for
⁴⁸ Romania. The preliminary LTFV margin for Yugoslavia was
⁴⁹ 33.61 percent. It has been my experience that the final
 margins computed by the Department of Commerce are often
 significantly lower than the preliminary margins computed in the
 same case. Nonetheless, the best available evidence is the
 preliminary margin for Yugoslavia. Using the above margins for
 each country, the quantity-weighted average dumping margin for
⁵⁰ the cumulated countries was 11.72 percent.

46

Final Determination of Sales at Less Than Fair Value; Tapered Roller Bearings and Parts Thereof, Finished or Unfinished; From the Hungarian People's Republic, 52 Fed. Reg. 17,428 (ITA 1987).

47

Commerce announced the dumping margin for imports of tapered roller bearings from the People's Republic of China on May 21, 1987. Commerce determined that the margin was 0.97 percent, and the finding of dumping excluded all Chinese producers. See Memorandum from Director of Investigations (May 26, 1987). Commerce's final determination in the case has not been published.

48

Final Determination of Sales at Less Than Fair Value; Tapered Roller Bearings and Parts Thereof, Finished or Unfinished, From the Socialist Republic of Romania, 52 Fed. Reg. 17,433 (ITA 1987).

49

Tapered Roller Bearings and Parts Thereof, Finished or Unfinished, From Yugoslavia; Preliminary Determination of Sales at Less Than Fair Value, 52 Fed. Reg. 3,640 (ITA 1987).

50

This margin is slightly overstated because the
 (Footnote continued on next page)

For purposes of my analysis, I will assume that the entire dumping margin was passed through to reduce the price of the cumulated imports.⁵¹ Thus, I will assume that if importers had to pay a "fair" price for these tapered roller bearings, they would have had to pay in the aggregate at most only 11.72 percent more for the imported product than they in fact paid.

It is obviously impossible to quantify exactly the volume, price, and revenue impacts of the cumulated dumped imports with this price advantage. But we can make a reasonable estimate through the following approach -- using volume and pricing data for 1986, and assuming that domestic demand for total imports would have remained fairly close to its historic performance.⁵²

At the outset, there is no evidence to suggest that the cumulated imports would have disappeared from the market simply

(Footnote continued from previous page)
Department of Commerce concluded that there were no direct, LTFV sales by PRC producers. The dumping margin on PRC goods was determined to exist only on certain sales by a Hong Kong trading company. See Federal Register notice.

51

If, as is likely, the entire dumping margin was not passed through to the imported goods, then my analysis overstates the magnitude of the adverse effects on the domestic industry caused by dumped imports.

52

The reasonableness of this latter assumption is supported by the Analysis of the Commission's Office of Economics in Memorandum EC-K-216.

because they were priced 11.72 percent higher. Assuming that overall domestic demand remained constant (or at least did not change in a dramatically different way for imported and domestic products), the cumulated imports would have remained in the market and the quantity of their sales would have depended upon their perceived attractiveness to consumers in light of the available alternatives. At the most cumulated imports would have amounted to 11,255,000 units sold, at an average price of 77 cents per unit -- the number of cumulated units that were actually sold in 1986 at the 1986 average price (69 cents per unit) plus 11.72 percent. At the least, cumulated imports would have been zero (a circumstance which would occur if consumers switched entirely to the available alternatives).

The principal alternatives available to consumers were the higher quality bearings produced by domestic companies or imported from Japan and Italy. How many of the sales of cumulated imports would have been sales of domestic bearings if the cumulated imports had been priced 11.72 percent higher?

For purposes of this analysis, I am willing to assume that the domestic companies were the only other producers in the market. I am thus eliminating the possibility that some sales

would have gone instead to Japanese and Italian producers. I do this because dumping investigations involving Japanese and Italian imports are now pending. To give the petitioners the benefit of all doubt, I assume that any price advantage enjoyed by Japanese and Italian imports over their domestic counterparts was the result of LTFV pricing. I am also ignoring the very real presence of producers from other countries not now subject to dumping investigations -- producers that in 1986 accounted for over 3.6 percent (on a value basis) of the sales of all bearings⁵⁴ excluding those now subject to dumping investigations.

Making the foregoing assumptions, if the producers of the cumulated imports and the domestic companies were the only producers in the market, at the most domestic sales would have increased by 11,255,000 units in 1986. This result assumes not a single customer purchased any of the cumulated import products.

To determine the positive revenue impact on the domestic industry if the cumulated imports had been priced entirely out of the market, it is necessary to make an assumption about the average per-unit price at which the domestic bearings could have been sold to customers who bought the cumulated imports instead. As I noted at the outset, unfair pricing on its own would not

54

See Staff Report at A-51 (Table 25).

have eliminated the presence of the cumulated imports, it simply would have meant that the cumulated imports would have been priced 11.72 percent higher -- that is at 77 cents per unit (based on actual 1986 average prices of 69 cents plus 11.72 percent). Ignoring relevant quality differences (the importance of which I discuss below), the domestic products would have had to be priced no higher than the same 77 cents per unit (on average) to completely supplant the cumulated imports. At a per-unit average price of 77 cents, domestic producers would have received additional revenues of only \$8,666,350 if they had gained all the sales that went instead to cumulated imports.⁵⁵ That amount is only 1.5 percent of the value of the domestic industry's actual shipments, less than 1.5 percent of the industry's net sales from roller bearing operations, and less than 1.5 percent of the domestic industry's net sales from establishments producing roller bearings in 1986.⁵⁶ I do not believe that a maximum gross revenue loss of only 1.5 percent is material injury within the meaning of the controlling statutes.

55

This revenue figure is derived simply by multiplying the per-unit average price times the number of units of cumulated imports sold in 1986.

56

See Staff Report at A-51 (Table 25), A-53 (Table 26), A-33 (Table 12), A-34 (Table 13).

The domestic industry's revenue loss caused by the cumulated imports could have been materially greater than 1.5 percent only if domestic sales could have supplanted the cumulated imports at average prices materially higher than 77 cents per unit. I find that possibility to be extremely unlikely. It is true that the quality of domestic bearings is significantly greater than the quality of the cumulated imports. In another situation this factor would suggest that the domestic products could be priced somewhat higher than the inferior imports because some customers would be willing to pay a premium for a better quality product. But the sales at issue in this case are sales to market segments where quality is a distant secondary consideration and price is most important. As I explained above, the evidence is overwhelming that the vast majority of the cumulated imports are sold for use in applications where the higher quality of the domestic product is not a material advantage. In a case such as this, it is not realistic to expect that the domestic producers could supplant sales of the cumulated imports if the domestic goods were priced materially higher than the imported alternatives.

57

Even if the high quality of domestic bearings allowed
(Footnote continued on next page)

Based on the foregoing analysis, it is apparent that the adverse effect on the domestic industry from dumped imports from the cumulated countries was trivial. Accordingly, I conclude that dumped imports from these four countries were not a cause of material injury.

Threat of Material Injury. The statute lists eight factors which the Commission is to consider in determining whether threat of material injury exists in a particular case.⁵⁸ Of these factors, seven apply to this case, a dumping case,⁵⁹ and of the seven, none indicates a threat of material injury to the U.S.

(Footnote continued from previous page)
 them to be priced somewhat higher than the cumulated imports, there are other reasons why domestic producers could not reasonably expect to capture all of the historic cumulated import sales and thereby increase their total revenues above the estimated \$8.6 million figure. There is some evidence that some customers do not want to deal with domestic producers at higher or equal prices. See Staff Report at A-56 (confidential). Moreover, there is no reason to believe the demand for roller bearings is absolutely fixed. If prices were higher as a result of antidumping duties (or simply fair pricing), it is reasonable to assume that there would be at least some decrease in demand for the cumulated imports.

58
 19 U.S.C. 1677(7)(F).

59
 One of the factors to consider is the nature of the subsidy involved, which does not apply in dumping cases. 19 U.S.C. 1677(f)(i)(I).

tapered roller bearing industry. The Commission gathered no evidence of any increases in productive capacity by the cumulated importers. There has been no rapid increase in market penetration by importers of bearings from these countries.⁶⁰

The ratio of inventories to imports has fallen 25.3 percent from 1983-1986.⁶¹ There is no evidence of underutilized capacity in

the Communist countries; in fact, the only evidence the Commission received on this issue was to the contrary.⁶² The potential for product shifting is minimal, because of the complex machines used in the manufacturing process.⁶³ Finally, there

is no evidence that imports of tapered roller bearings from these countries will suppress or depress the price of roller bearings in the U.S. market.⁶⁴ Therefore, due to negative findings on all

60

See Staff Report at A-53 (Table 26). The imports of bearings from the Communist countries have remained constant from 1.0 to 1.4 percent of the value of all tapered roller bearings consumed in the United States from 1983 through 1986. Id.

61

See id. at A-44.

62

See id. at A-62 (Table 21).

63

See id. at A-8-A-10 (describing the manufacturing process).

64

The share of the market that these companies hold is
(Footnote continued on next page)

points, I determine that there is no threat of material injury to the U.S. tapered roller bearing industry because of imports from these countries.⁶⁵

(Footnote continued from previous page)
very small and is concentrated in the low end of the market where imports already dominate.

65

I note that this analysis assumes that cumulation is appropriate in evaluating threat of material injury. I am highly doubtful that imports should be cumulated for purposes of assessing threat, but I do so here to give petitioners the benefit of the doubt on this question.

INFORMATION OBTAINED IN THE INVESTIGATIONS

Introduction

Following preliminary determinations by the U.S. Department of Commerce that imports of tapered roller bearings from Hungary, the People's Republic of China (China), and Romania are being sold in the United States at less than fair value (LTFV), the U.S. International Trade Commission instituted antidumping investigations Nos. 731-TA-341, 344, and 345 (Final). ^{1/} In these antidumping investigations, the Commission must determine whether an industry in the United States is materially injured, or threatened with material injury, by reason of the imports that have been found by Commerce to be sold at LTFV.

Notice of the institution of the Commission's antidumping investigations and of a public hearing to be held in connection with these investigations 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 26, 1987 (52 F.R. 5841). The hearing was held on May 12, 1987, and the Commission's vote on these investigations was on May 27, 1987. ^{2/} The Commission is scheduled to transmit its determinations to the Department of Commerce by June 5, 1987.

Background

On August 25, 1986, a petition was filed with the U.S. International Trade Commission and the U.S. Department of Commerce on behalf of The Timken Co. (Timken), Canton, OH, alleging that imports of tapered roller bearings and parts thereof, finished or unfinished, and certain housings containing tapered rollers from Hungary, Italy, Japan, China, Romania, and Yugoslavia are being sold at less than fair value (LTFV) and that an industry in the United States is materially injured and threatened with material injury by reason of such imports. Tapered roller bearings and parts thereof and certain housings containing tapered rollers are imported under Tariff Schedules of the United

^{1/} The petition and the Commission's preliminary affirmative determinations also covered imports of the subject products from Italy, Yugoslavia, and Japan. However, the Department of Commerce extended the date for its preliminary determination on Japan from Feb. 6, 1987, to Mar. 23, 1987, and postponed the date of its final determinations on LTFV imports from Italy and Yugoslavia from Apr. 20, 1987, to June 22, 1987. Commerce also subsequently extended the date for its final determination on Japan from June 8, 1987, to Aug. 10, 1987. As a consequence, the Commission's schedules for the conduct of the investigations on imports of tapered roller bearings from Italy, Yugoslavia, and Japan differ from that for Hungary, China, and Romania. The Commission's hearing on May 12, 1987, covered all six countries, and this report includes trade data on all countries. Supplemental briefs and separate staff reports will be submitted to the Commission following Commerce's final LTFV determinations on Italy, Yugoslavia, and Japan. Copies of the Commission's notices are presented in app. A. The Commission's authority to conduct these investigations is under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)).

^{2/} A list of witnesses appearing at the Commission's hearing is presented in app. B.

States (TSUS) items 680.30, 680.39, 681.10, 692.32, and elsewhere as provided for in the TSUS.

Accordingly, effective August 25, 1986, the Commission instituted antidumping investigations Nos. 731-TA-341-346 (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 threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of such imports. In a public briefing and vote held on October 2, 1986, the Commission unanimously determined that there was a reasonable indication that a U.S. industry was injured by alleged LTFV imports from Hungary, Italy, Japan, China, Romania, and Yugoslavia.

Previous Investigations and Scope of the Current Investigations

Tapered roller bearings have been the subject of four other investigations conducted by the Commission. In 1974, upon advice (as amended) from the U.S. Department of the Treasury that tapered roller bearings from Japan were being, or were likely to be sold at LTFV, the Commission conducted an investigation under section 201(a) of the Antidumping Act, 1921 (19 U.S.C. 160 (a)). In that investigation, No. AA1921-143, the Commission determined that an industry in the United States was likely to be injured by reason of LTFV imports of tapered roller bearings, including inner race or cone assemblies and outer races or cups, from Japan. ^{1/} The Treasury Department subsequently published its finding of dumping with regard to these imports (41 F.R. 34974, Aug. 18, 1976).

The Department of Commerce has since clarified the scope of this antidumping order and revoked the order with respect to one Japanese producer. The outstanding dumping order at present applies only to finished tapered roller bearing sets, cone (inner race) assemblies, and cups (outer races) of four inches or less in outside diameter (46 F.R. 40550, Aug. 10, 1981) and excludes these bearings produced by NTN Toyo Bearing Co. Ltd. (NTN Toyo) (47 F.R. 25757, June 15, 1982). The revocation of the antidumping order for NTN Toyo was appealed by the petitioner to the U.S. Court of International Trade (CIT), which remanded the case to Commerce for redetermination. During the second remand ordered by the CIT, Commerce determined that LTFV sales by NTN Toyo had occurred during the period for which it had previously based its revocation decision. Accordingly, Commerce has recently recommended to the CIT that Commerce's revocation be rescinded with regard to NTN Toyo. Commerce stated in its notice of preliminary determination of LTFV sales from Japan that "if during the course of this investigation the Department rescinds its revocation with respect to NTN and that rescission is affirmed by final judicial order, this antidumping investigation would be terminated with regard to any bearings manufactured by NTN that would be covered by the outstanding dumping finding" (52 F.R. 9906, Mar. 27, 1987).

In March 1983, the Commission conducted preliminary investigations Nos. 731-TA-120-122 (Preliminary) under section 733(a) of the Tariff Act of 1930

^{1/} Tapered Roller Bearings and Certain Components Thereof from Japan, USITC Publication 714, January 1975.

concerning railway freight car journal roller bearings from Japan, the Federal Republic of Germany (West Germany), and Italy. ^{1/} The Commission determined that there was a reasonable indication of material injury to the domestic industry, and on August 30, 1983, Commerce determined that imports from Japan and Italy (but not West Germany) were being sold in the United States at LTFV. Accordingly, the Commission instituted final antidumping investigations under section 735 of the Tariff Act of 1930 on certain tapered roller bearings and parts thereof from Japan and Italy (investigation Nos. 731-TA-120-121 (Final)), but made negative determinations with respect to both investigations. ^{2/}

Finally, following receipt of a request dated March 29, 1985, from the Chairman of the Subcommittee on Trade of the House Committee on Ways and Means, the Commission instituted investigation No. 332-211, a competitive assessment of the U.S. ball and roller bearing industry under section 332(b) of the Tariff Act of 1930 (19 U.S.C. 1332(b)), and reported to the subcommittee on January 2, 1986. The investigation evaluated the competitive position of the U.S. industry producing antifriction balls and rollers and ball and roller bearings in domestic and world markets. ^{3/}

The Product

The scope of these investigations as defined by the Department of Commerce includes tapered roller bearings, finished and unfinished components of tapered roller bearings, and certain mounted and self-contained tapered roller bearings. ^{4/} Each of these products is discussed in detail below in the sections on product description and manufacturing process, as well as in the section on U.S. tariff treatment. However, Commission staff has determined that not all of the products included within the scope of the investigation are produced by the U.S. tapered roller bearing industry or are imported from the countries subject to investigation. A discussion of this issue is presented in the section following U.S. tariff treatment.

Description and uses

Tapered roller bearings are part of the larger product category of antifriction bearings. Antifriction bearings are machine components that permit free motion between moving and fixed parts by holding or guiding the moving parts to minimize friction and wear. In a bearing, a series of rollers or balls are usually mounted in a separator called a cage and enclosed between two rings called races. The rolling elements are very important, since they transmit the physical load or force from the moving parts to the stationary support. The two principal types of antifriction bearings are ball bearings

1/ Certain Tapered Roller Bearings and Parts Thereof from Japan, The Federal Republic of Germany, and Italy, USITC Publication 1359, March 1983.

2/ Certain Tapered Roller Bearings and Parts Thereof From Japan and Italy, USITC Publication 1497, February 1984.

3/ Competitive Assessment of the U.S. Ball and Roller Bearing Industry, USITC Publication 1797, January 1986.

4/ For a precise definition of Commerce's scope, see its notices presented in app. C.

and roller bearings, depending on which type of rolling elements are employed. Tapered roller bearings are preferred instead of ball bearings for many applications because they are able to absorb both radial and thrust loads, unlike ball bearings, which typically withstand only radial force. 1/

Tapered roller bearings are designed and sized for specific applications in a variety of products and industries. Sizes vary considerably, from one-half inch in outside diameter to over 100 inches in outside diameter. The principal applications for these bearings are in automotive equipment, farm and industrial machinery, construction equipment, conveyors, railroad equipment, and various miscellaneous vehicles. 2/ Tapered roller bearings are also precision machine parts, with acceptable variances in their dimensions often measured in millionths of an inch. 3/

There are four basic components in a tapered roller bearing: the cup, the cone, the cage, and the rollers. Figure 1 illustrates an assembled tapered roller bearing, as well as the individual components and nomenclature associated with the products. The cup, also called the outer ring, is the largest part of the assembly, and its inner surface is tapered to conform with the angle of the roller assembly. The narrow edge of the cup is called the front face and the wide edge is called the back face. The cage keeps the rollers equally distributed around the cup and cone. Industry sources indicate that while pressed steel cages dominate the market, nylon (polymer) cages are used in small industrial applications and in some automotive uses. The tapered rollers (rolling elements) fit into openings in the cage. The number of rollers is a function of the size of the cages, which is determined by the end usage of the bearing. The cage, rollers, and cone are joined together to form a cone assembly, which, when joined with a cup, forms a tapered roller bearing set. Sets, cone assemblies, and cups are the three major market products; rollers, parts, and unfinished components are rarely sold as a commodity in the U.S. market.

Sets, cone assemblies, and cups are specified by part numbers that are based on standardized industry designations. Generally the part number will indicate such important characteristics as the outside and inside diameter, roller angle, and various interchange dimensions. Bearing industry officials indicate that for the same part numbers, only the internal geometries and tolerances will be different, regardless of manufacturer. 4/ The remaining specifications will be constant, allowing for a degree of standardization in the industry. There are two basic systems of standardization in tapered

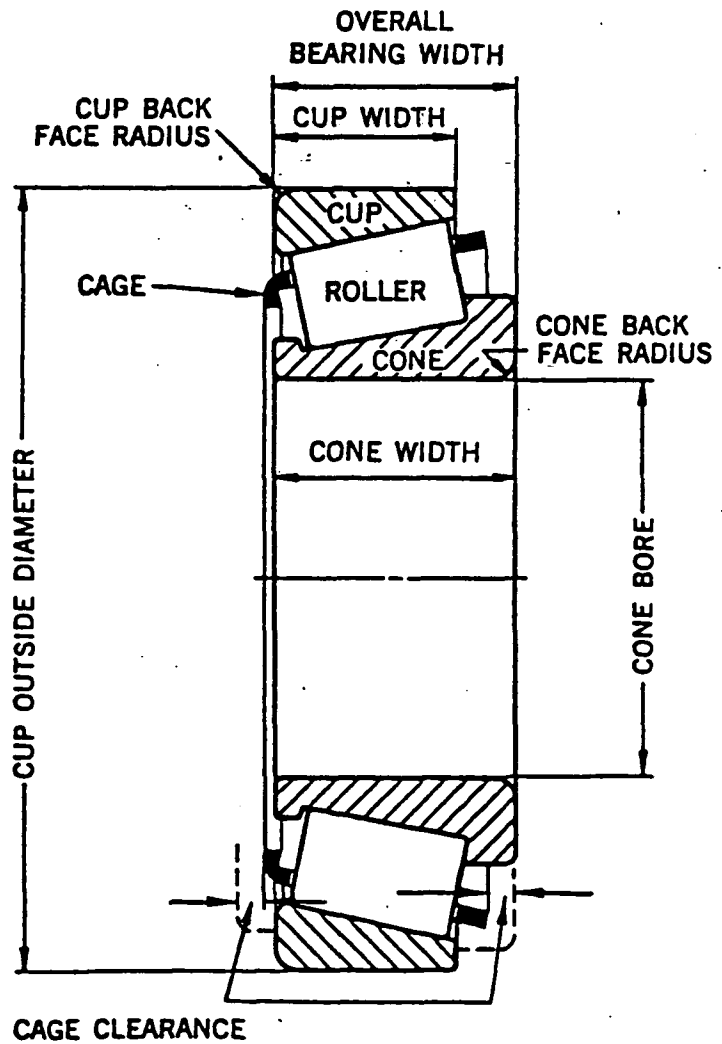
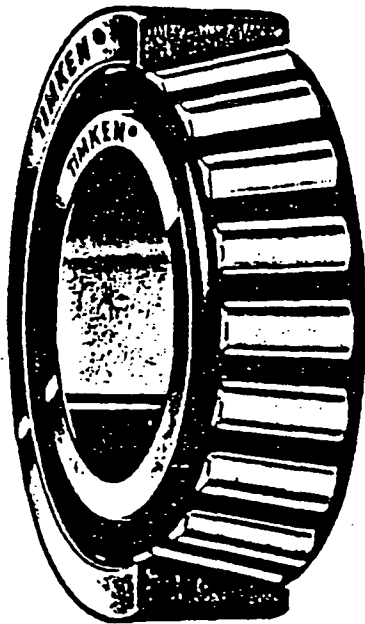
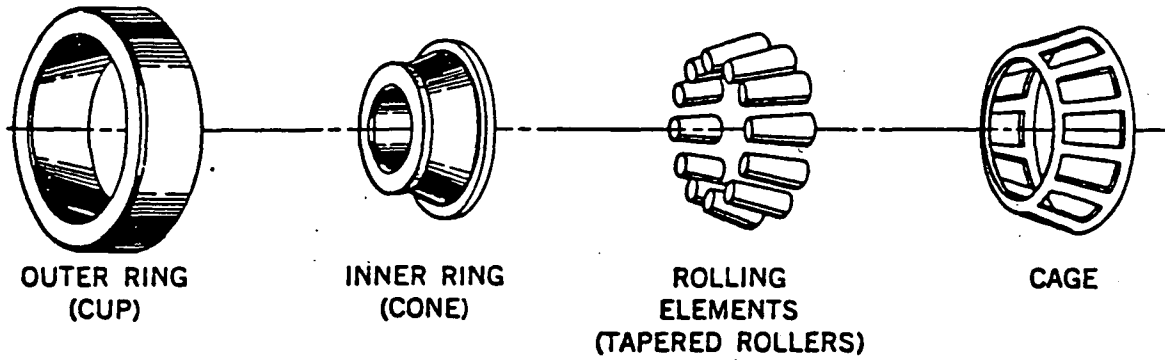
1/ Radial loads are those perpendicular to the axis of rotation, whereas thrust loads are normally parallel to the level of rotation. "Bearing, Antifriction," in McGraw-Hill Encyclopedia of Science and Technology, 1977, p. 129.

2/ Competitive Assessment of the U.S. Ball and Roller Bearing Industry, USITC Publication 1797, January 1986, p. 11.

3/ This range, or variance in the dimensions of a bearing, is called "tolerance."

4/ Internal geometries relate to the precise configuration of rollers, cones, and cups--all of which have slightly crowned surfaces to minimize friction by minimizing the points of contact between components. The specific tolerances and internal geometries are proprietary to each manufacturer.

Figure 1
Tapered Roller Bearing



roller bearings. The AFBMA (Antifriction Bearing Manufacturers Association) system specifies dimensions in inches whereas the ISO (International Standards Organization) system uses metric specifications.

The choice of which specific tapered roller bearing or component to use relates to such factors as the load-carrying ability of the assembly, the type of loads to be carried, and the desired useful life of the bearing. Tapered roller bearings are employed when it is necessary to counteract friction caused by both radial and thrust loads on axles and in various machinery. Life expectancy is based on the results of tests on a large number of identical bearings under comparable conditions. The life expectancy of a tapered roller bearing is expressed as a certain number of hours at a designated number of rotations and load. The figure assumes that 90 percent of all bearings will achieve their life expectancy under the listed conditions.

The price of a tapered roller bearing typically includes all related engineering and servicing functions to integrate the bearing into the final product. This often involves detailed consultations at the design stage. Additionally, bearings come with a warranty of 1 to 2 years for materials and workmanship. In recent years, however, there has been pressure from various end users for warranties exceeding 3 years.

In regard to refurbishing tapered roller bearings, only very large bearings are typically remachined. This operation involves the regrinding of some of the components and the installation of a new cage. It is not cost effective to perform this work on smaller bearings, as the labor and material costs would be only slightly less than the cost of a new product. Bearings used in milling and rolling machines, mining equipment, and railroad journal bearings are the only major bearing types normally refurbished.

Roller and ball bearings in general are not functionally interchangeable, although the original determination of which type of roller element (i.e., ball or tapered roller) to use is sometimes an engineering choice at the initial design phase of the product incorporating the bearing. As stated earlier, the choice would depend on the amount and type of load-carrying ability, as well as other factors. However, industry sources have indicated that as production of automobiles has trended toward smaller, lighter weight, front-wheel drive vehicles, there has been some substitution of ball bearings for the tapered roller bearings that had previously been used. ^{1/} Nevertheless, in many industrial applications of both radial and thrust loads, there is a much lower degree of interchange between roller and ball bearings.

Industry sources and respondents in these investigations indicate that there are distinct qualities of tapered roller bearings in the U.S. market-- a poorer quality bearing from China, Hungary, Romania, and Yugoslavia that serves the low end of the U.S. market, and superior bearings from the United States, Japan, and Italy that serve the major OEM markets. The differences in quality of these two groups of bearings are discussed in this report in the section entitled "Cumulative effects of imports under investigation."

Self-contained tapered roller bearing packages.--Self-contained tapered roller bearing packages include cartridge bearing units and wheel hub units.

^{1/} "Availability is the key for the 1980's," Purchasing, Feb. 10, 1983, p. 60.

Cartridge bearing units are prelubricated, preset, double-row tapered roller bearings that contain the cone assemblies sealed within a tapered roller bearing cup. 1/ Bearing cartridge units are a relatively new product in the U.S. market (about 10 years), but they have been used extensively in Europe for about 30 years (the European bearings incorporate ball bearings and not tapered roller bearings). Bearing cartridge units, both the ball and tapered roller styles, are used almost exclusively in the United States on the front axle of front wheel drive cars. 2/ These units eliminate the need for adjustment of the close tolerances required with the traditional assembly of separate bearings and components, and are lighter and easier to assemble than the separate bearing components. 3/ (Industry sources indicate the units were developed in response to requirements by the automobile industry for more modular assemblies, in addition to lighter weight components.)

Wheel hub units are also prelubricated, preset, double-row tapered roller bearings that have been sealed; however, instead of a cup, the cone assemblies are sealed into a cast, flanged housing with bolt holes for direct mounting onto the wheel hub. The flanged housing performs as the outer race of the bearing, taking the place of the typical tapered roller bearing cup. The useful life of both of these types of bearing units is the life of the automobile, and the next generation of the self-contained units will have flanged inner and outer rings as part of the assembly. This will allow it to take over the functions of other, usually separate, components in the wheel hub system. Cartridge bearing units incorporating tapered rollers are directly substitutable with ball bearing cartridge units for certain part numbers, and in most cases a ball bearing unit or a tapered roller bearing unit may be selected at the initial design stage of the automobile. 4/

Mounted bearing units. -- Mounted bearing units covered by this investigation are flange, cartridge, take-up, and hanger assemblies. These assemblies are premounted bearings and may incorporate ball bearings, tapered roller bearings, or other types of antifriction bearings. Mounted bearing units consist of the bearing element that is set and sealed into a housing, which is then mounted onto a machine frame. Mounted bearing units 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. 5/

Finished and unfinished components of tapered roller bearings. -- Finished components of tapered roller bearings are the rollers, cages, cones, and miscellaneous small parts (i.e., spacers and seals) that have been completely machined and polished and are ready for final assembly into a tapered roller bearing. The industry considers the finished cup to be a tapered roller bearing of the same genre as the cone assembly and not a component of a tapered roller bearing. Unfinished bearing components are the cones, cups, and rollers that have been green machined and heat treated (see section on the

1/ Timken, the major U.S. producer of these bearings, has trademarked them as Unipac and Unipac Plus. Unipac Plus is the flanged version of this type of bearing, and Timken * * *.

2/ There is also a limited application for these units for engine fan hubs.

3/ Because these units are preset, * * *.

4/ Interview with officials of The Timken Co., Sept. 11-12, 1986.

5/ Machine Design, "Bearing Reference Issue," Mar. 10, 1966, vol. 38, no. 6.

manufacturing process) but that require final finishing, as described later in this report, before they can be assembled or finished into a tapered roller bearing and thus act as an antifriction device.

Manufacturing process 1/

There are four major steps in the production of tapered roller bearings: green machining, heat treating, finishing, and assembly and inspection. Special bearing grade alloy steel in the form of 12 to 15 foot seamless tubing is the raw material utilized in the production of most cups and cones, while alloy wire, in the form of coils, is the base material for roller manufacture. There is a generally accepted minimum industry standard for the steel utilized in tapered roller bearing production; however, the raw material used by most bearing manufacturers exceeds this standard in quality.

Green machining is an industry term that relates to the machining operations performed on the raw materials prior to heat treatment for cups, cones, and rollers. For cups and cones, the steel tubing is machined on single or multiple screw machines. When the desired contour and shape is reached, the cup or cone is sheared off the end of the tube. The green machining of the cone, however, involves more steps because of the increased complexity of the design and function of this component. The cones and cups are then inspected and electronically gauged to ensure adherence to the prescribed specifications.

The next operation involves the removal of the "burr," the sharp edge of the cups and cones, by a chambering machine. The country of origin, part number, and company are then stamped on the product for identification. The green machining of rollers begins with coil wire drawn into a cold header machine where the rollers are sheared in rapid succession and are "headed" or butted in a die to form the desired shape. The bearing components are then heat treated in a two-stage process to ensure durability, hardness, and shock resistance. The first step in this process, carburization, heats the green-machined components in a carbon rich atmosphere to impregnate carbon into the surface of the product. After quenching (emersion in an oil bath) the high-carbon case becomes very hard, while the lower carbon core remains comparatively soft. The high carbon content of the outer layer ensures that the rolling contact surfaces will be hard and wear resistant, while the "softer" core enables the bearing to absorb shocks more easily. Although the

1/ Although there are major similarities in the production process between firms, especially with regard to heat treating and final finishing, a few U.S. producers use a "hot roll ring forming" process instead of green machining. This method involves the feeding of steel bars into an electric induction furnace where the bars are heated to almost 2,200 degrees. Prescribed lengths of the heated bars are then sheared, and the slugs are pressed and pierced in a rapid succession of dies to form a donut shape. Removal of the burr, heat treatment, carburization, and finishing operations are comparable to those utilized in the green machining process. The reported advantages of hot roll ring forming include cheaper raw materials, greatly reduced waste, and a grain structure which gives longitudinal and transverse strength. Industry sources indicate, however, that hot roll ring forming is really viable only for bearings greater than 4 pounds in weight.

vast majority of tapered roller bearings produced in the United States are "case hardened," there are some bearings that are "through hardened"; that is, these bearings have not been carburized, but simply heat treated.

After carburization, the components are placed in a hardening furnace and heated to high temperatures for an extended period of time. This stage of heat treatment permanently fixes the carbon in the bearing component. To complete this process, the cups and cones are "plugged" in a stamping die to reshape them (the heating process distorts their size) and quenched in an oil bath. On average, the heat treatment process takes 10 to 12 hours to complete.

The third phase of production--finishing--consists mainly of a series of grinding and honing operations to ensure the components are sized to the required precise tolerances and polished to ensure the smoothest possible rolling surface. Cup and cone grinding are done in various steps as shown in the following tabulation:

<u>Grinding steps</u>	<u>Cup</u>	<u>Cone</u>
1st.....	face grind	face or cone grind
2nd.....	outside diameter grind	race or outside diameter grind
3rd.....	inside diameter	bore or inside diameter grind
4th.....	--	rib face grind

Honing involves the polishing of the inside diameter of the cup and the outside diameter of the cone. A honing machine utilizing a very fine grade of sandpaper performs these operations. Cup honing is especially important as the inner surface of the cup comes in contact with the rollers and must be as smooth as possible to reduce friction. Throughout this process, the components are visually inspected for flaws and gauged to ensure dimensional compliance.

Rollers are finished somewhat differently than cups and cones. The basic steps are rough grind of the roller body, grinding of the roller end, a finishing grind of the roller body, and roller honing. Rollers initially pass through a number of grinding machines that remove steel from the outside diameter before it reaches the specified size. During end grinding, steel is removed from the large end of the roller, leaving a slightly convex shape. Final grinding and honing then takes place and the rollers are inspected, gauged, and packaged in their sequential order of production to minimize the variance of a complement of rollers in a cone assembly.

Cages are produced from cold-rolled strip steel. The steel is fed into a "cut and carry press" that performs the blanking, bottoming, perforation, and winging operations that produce a finished cage. The cut and carry press has multiple stations within it, and an internal conveyor that moves the material along through the various processes. Blanking involves forming the strip steel into a dish shape, whereas bottoming involves the punching out of 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 roller installation. Cages are then annealed to relieve any stresses. Annealing involves heating the cages 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.

In the assembly stage, cages are mounted on an assembly nest and the rollers are placed in the openings or pockets of the cage. The cone is then inserted into the middle of the cage and put in a close-in press that slightly presses or "crimps" the assembly together to keep the components intact. The cups and cone assemblies are then demagnetized, inspected, and slushed with a protective anti-rust solution and packaged for shipment.

Bearing production involves a high degree of mechanization because, in large part, of the very tight tolerances required in the products. The use of computer-aided manufacturing, microprocessors, laser-gauging equipment, and highly automated material-handling equipment are often employed in the production of tapered roller bearings. Employees perform very little of the actual production; they are primarily machine operators and quality control inspectors. Each worker is responsible for the product coming out of his or her station; consequently, there is a high percentage of gauging and inspection. All components are tested several times throughout the production process, and cone assemblies and cups are subject to 100 percent inspection.

Mounted bearing units.--Only * * * of tapered roller bearings reported manufacturing these type of assemblies and then only * * *. * * *. No importers of tapered roller bearings from the countries subject to investigation imported mounted bearing units incorporating tapered roller bearings. In addition, importers identified by the Customs net import file as importers of mounted bearing units from the subject countries reported to Commission staff that these mounted bearing units incorporated ball bearings or antifriction bearings other than tapered roller bearings.

Cartridge bearing units.--Timken is the largest U.S. producer of these bearings, and * * *.

Unfinished tapered roller bearing components.--Unfinished tapered roller bearing components--specifically, rollers, cups, and cones--are ground, polished, and assembled into finished tapered roller bearings in the manner described earlier. Three U.S. producers, NTN, Koyo Corporation of U.S.A. (Koyo), and * * * import unfinished bearing parts and complete them into final bearing products. Koyo * * *. The company manufactures its own rollers from imported steel coil. NTN * * *. Both firms import the components from their Japanese parent companies. * * *.

With regard to the degree of transformation that unfinished components must go through to become tapered roller bearings, Koyo calculated that more than *** percent of the transfer value of its finished goods is added in the finishing process. 1/ In addition, in its clarification of products subject to the outstanding dumping order of tapered roller bearings from Japan, the Department of Commerce determined that unfinished tapered roller bearing components from Japan have more than half of their value added in the U.S. finishing process (46 F.R. 40550, Aug. 10, 1981). Figure 2 illustrates the finishing process of Koyo Corp. in its U.S. facility.

1/ Koyo sells all of its product to its marketing and distribution organization, American Koyo Corp. (AKC).

Figure 2.--Finishing operations on tapered roller bearings

* * * * *

U.S. tariff treatment

Tapered roller bearings and parts are classified for tariff purposes in TSUS items 680.39 and 680.30 and statistically reported under a number of Tariff Schedules of the United States Annotated (TSUSA) items depending on their condition at the time of importation. Tapered roller bearing cup and cone assemblies imported as a set are provided for in TSUSA item 680.3932, while cups and cone assemblies imported separately are reported under items 680.3934 and 680.3938, respectively. Antifriction rollers are provided for under TSUSA item 680.3040 and other tapered roller bearing parts are included in item 680.3940. Unfinished components for tapered roller bearings would be reported under items 680.3934 (cups), 680.3940 (parts), or 680.3040 (rollers). Mounted bearing units incorporating all types of bearings are reported under item 681.1010, but tapered roller bearings imported separately for these units would be reported under the appropriate above-mentioned TSUSA items. 1/

Self-contained tapered roller bearing packages are reported under the TSUSA tapered roller bearing category, 680.3932 (sets), or the residual or "basket" automotive parts provision 692.3295, depending on their configuration. These units, when incorporating ball bearings, have been the subject of numerous classification rulings by the U.S. Customs Service, which are also applicable to units incorporating tapered roller bearings. The Customs Service ruled that "a double row, angular contact ball bearing whose outer race has been expanded, flanged, and drilled in order to take over part of the wheel hub" and a similar bearing whose inner race was splined allowing it "to replace completely the conventional driven-wheel hub" and become a structural element of the suspension system both demonstrate functions that are in excess of those normally associated with ball or roller bearings and...are classified under the provision for other parts of motor vehicles in item 692.32." 2/ Customs officials indicate that if the primary function of a bearing cartridge unit exceeds the reduction of friction, the article is not classified as a tapered roller bearing. 3/

The current column 1 (most-favored-nation) rate of duty for assembled tapered roller bearings is 6.5 percent ad valorem. The comparable column 1 duty rate for parts of these bearings ranges from 4.9 percent ad valorem to 6.5 percent ad valorem, as shown in table 1. Concessions negotiated during the Tokyo Round of the Multilateral Trade Negotiations provided for gradual duty reductions on imports under these tariff items, with the last reduction occurring as of January 1, 1987. Imports of tapered roller bearings from all of the countries subject to this investigation are dutiable at the column 1 rate of duty.

1/ Customs has determined that bearings imported for mounted bearing units should be classified eo nomine as bearings, and not as a part of the mounted bearing unit (U.S. Customs Service Internal Advice Request 48/86).

2/ Section 177.1 (a)(1) of the Customs Regulations (19 C.F.R. 177.1 (a)(1)).

3/ Discussion with Karl J. Riedl, National Import Specialist, U.S. Customs Service, Commercial Operations Division, Sept. 15, 1986.

Table 1.--Tapered roller bearings: U.S. rates of duty, by TSUSA items

(Percent ad valorem)			
TSUSA item No.	Commodity description	Col. 1 rate of duty 1/	Col. 2 rate of duty
	Antifriction balls and rollers:		
680.3040	Rollers.....	4.9	45.0
	Ball or roller bearings, including such bearings with integral shafts, and parts thereof:		
	Other:		
	Other:		
	Tapered roller bearings and parts:		
680.3932	Cup and cone assemblies imported as a set.....	6.5	67.0
680.3934	Cups imported separately.....	6.5	67.0
680.3938	Cone assemblies imported separately.....	6.5	67.0
680.3940	Other parts.....	6.5	67.0
	Gear boxes and other speed changers with fixed, multiple, or variable ratios; pulley and shaft couplings; pillow blocks; flange, take-up, cartridge, and hanger units; torque converters; chain sprockets; clutches and universal joints; all of the foregoing (except parts of agricultural or horticultural machinery and implements provided for in item 666.00 and parts of motor vehicles and bicycles) and parts thereof.		
	Flange, take-up, cartridge, and hanger units, and parts thereof:		
	Ball or roller bearing type:		
681.1010	Complete units.....	5.7	45.0
	Chassis, bodies (including cabs), and parts of the foregoing motor vehicles:		
	Other:		
	Other:		
692.3295	Other.....	3.1	25.0

1/ The rates of duty in column 1 are most-favored-nation (MFN) rates and are applicable to imported products from all countries except those enumerated in general headnote 3(d) of the TSUS. China, Hungary, Romania, and Yugoslavia are the only Communist countries eligible for MFN treatment.

Problems with product definition

Not all of the products identified as within the scope of these investigations are manufactured by the U.S. tapered roller bearing industry or are imported into the United States from the countries subject to investigation. A complicating factor is that general product definitions do not correspond to

various Customs rulings regarding certain types of bearings. The problems of product definition involve those products identified as mounted bearing units imported under TSUS item 681.1010.

The petition specifically identifies imports of flange, take-up, cartridge and hanger units enumerated in item 681.1010 of the TSUSA as products contributing to the injury of the U.S. industry. However, as has been indicated earlier in this report, there have been no imports of these items incorporating tapered roller bearings into the United States, and * * *. ^{1/} However, the semantics of the tapered roller bearing nomenclature have complicated the seeming finality of this situation: no one in the industry or in the Federal Government knows what the "cartridge units" identified in TSUS 681.1010 are. There is a suspicion that as a mounted bearing unit, this cartridge unit is different from the cartridge bearing units used for front-wheel drive automobiles, but no one knows exactly what the product is. Industry publications identify a "cylindrical mounted bearing unit" that is similar to, but not the same as, the automotive cartridge unit.

In its response to the Commission's questionnaire, * * *. However, Customs rulings and internal advice decisions indicate that railroad bearings are to be imported as tapered roller bearings, bearing cartridge units without flanged races are classified eo nomine (i.e., as a ball bearing or tapered roller bearing), and bearings with flanged races whose function is to exceed the reduction of friction are classified as automobile parts. In none of these decisions was the 681.1010 classification considered for these types of tapered roller bearings. To date, all imports of cartridge bearing units similar to the Unipac and Unipac Plus have been imported under the tapered roller bearing or automotive parts provisions.

Nature and Extent of Alleged Sales At LTFV

The final LTFV margins determined by Commerce were 7.42 percent for Hungary; 0.97 percent, China; and 8.70 percent, Romania. ^{2/} Since Hungary, China, and Romania are all nonmarket economies, alternative methods to the standard LTFV calculations were used. These methods are detailed in Commerce's notices, which are presented in appendix C. Commerce found LTFV margins on *** percent of verified sales for Hungarian bearings and on *** percent of sales for Romanian tapered roller bearings. Commerce excluded all of the Chinese producers from the LTFV finding, since margins were found only on * * * for a Hong Kong Trading company.

Character of the U.S. Market

U.S. producers

There were 10 producers that manufactured tapered roller bearings during 1983-86; however, Timken has historically dominated the U.S. industry and market, accounting for well over half of U.S. industry sales. Timken invented

^{1/} * * *.

^{2/} The dates for Commerce's other remaining final determinations are as follows: June 22, 1987, Italy and Yugoslavia; and Aug. 10, 1987, Japan.

the modern tapered roller bearing and patented it in 1898. Since then, Timken has grown into a multinational corporation with *** U.S. tapered roller bearing plants and operations in 6 countries. Timken is the only fully integrated U.S. tapered roller bearing producer, supplying steel tubing and wire for its bearing production from its steel facilities. Other than steel, Timken manufactures predominantly tapered roller bearings.

There are currently nine producers of tapered roller bearings in the United States, with one firm starting production in 1985. Federal Mogul Corp. (Federal Mogul) sold its tapered roller bearing facilities and part of its research and development complex to NTN Toyo Bearing Co. Ltd. (NTN Toyo) in a joint venture in 1985. Federal Mogul consequently ceased tapered roller bearing production * * *, and the new joint venture company, NTN-Bower, began production in January 1986. NTN and NTN-Bower are operated as separate corporations even though they have a common parent. The list of U.S. producers, their shares of 1983 and 1986 shipments by quantity and value, and their positions with regard to the petition are presented in table 2.

With the exception of Koyo, NTN, and * * *, all of the U.S. producers have "ground up" production facilities; that is, they manufacture tapered roller bearings from steel mill products. Koyo, NTN, and * * * are primarily finishing and assembly operations; that is, they import unfinished and finished bearing components and finish/assemble them into completed bearings (sets, cups, and cone assemblies). * * *. However, as indicated earlier, the finishing and assembly operations are not insignificant to the production process--it is at this stage that bearing components are machined into precision products and at which there is significant value added to the components. NTN and Koyo both have U.S. affiliates that are their sales organizations; these affiliates are also large importers of finished tapered roller bearings from Japan.

Of the U.S. producers, Timken and SKF are the only "full line" producers of tapered roller bearings. That is, they sell thousands of distinct part numbers in all of the submarkets for tapered roller bearings (SKF, however, has a more narrow range of bearings than Timken, which lists over 26,000 bearing part numbers in its catalogue). The other producers have primarily focused on particular segments of the tapered roller bearing market, and several also produce other types of bearings. For example, Brenco predominantly makes railroad journal bearings, Torrington makes bearings primarily for the metal rolling mill industry, Federal Mogul/NTN-Bower manufacture * * *, and most of the remaining producers have concentrated on the automotive industry. Hyatt Clark Industries (Hyatt Clark) sells about *** percent of its tapered roller bearings to General Motors, but is in the process of "orderly liquidation under Chapter 11 bankruptcy." For many U.S. manufacturers, Timken has been the only available source of tapered roller bearings for their particular needs.

Major changes in the U.S. industry.--Several major changes have occurred in the structure and performance of the U.S. tapered roller bearing industry. With regard to structural changes, there was the introduction of NTN in * * * as a new U.S. producer, and Federal Mogul sold its tapered roller bearing plants to NTN Toyo. Federal Mogul initially retained ***-percent ownership of the new joint venture firm, NTN-Bower, * * *.

Table 2.--Tapered roller bearings: U.S. producers, their share of 1983 and 1986 shipments, and positions with regard to the petition

Company	Location 1/	Establish- ments 2/	Comments	Share of ship- ments--quantity		Share of ship- ments--value		Position on the petition
				1983	1986	1983	1986	
				----percent----		----percent---		
American NTN Bearing Manufactur- ing Corp.	Des Plaines, IL	1	* * *	***	***	***	***	* * *
Brenco, Inc.	Petersburg, VA	1		***	***	***	***	* * *
Federal Mogul Corp.	Southfield, MI	2	* * *	***	***	***	***	* * *
Hyatt Clark Industries	Clark, NJ	1	* * *	***	***	***	***	* * *
Koyo Corp. of USA	Westlake, OH	1	* * *	***	***	***	***	* * *
L&S Bearing Co.	Oklahoma City, OK	1		***	***	***	***	* * *
NTN-Bower Corp.	Franklin, MI	2	* * *	***	***	***	***	* * * 3/
SKF Indus- tries, Inc.	King of Prussia, PA	2	* * *	***	***	***	***	* * *
The Timken Co.	Canton, OH	10	* * *	***	***	***	***	Petitioner
The Torrington Co.	Torrington, CT	1		***	***	***	***	* * *
				100	100	100	100	

1/ Corporate headquarters.

2/ Tapered roller bearing production facilities only.

3/ * * *.

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

In addition to the emergence of two "new" tapered roller bearing producers, one firm, Hyatt Clark, will exit the industry this fall after liquidating the company under Chapter 11. (A detailed discussion of Hyatt Clark's experience is presented below.) In addition, SKF closed one of its two tapered roller bearing plants, and Timken is phasing out production at one of its older plants over the next 2 years. There has been a general process within the industry of trying to retire excess or obsolete capacity.

With regard to the performance of the industry, four firms have had notable experiences, both good and bad. * * *

The experience of Hyatt Clark.--Prior to 1981, Hyatt Clark was the tapered roller bearing division of New Departure Hyatt, the ball and roller bearing division of General Motors (GM). In 1980, GM announced its decision to sell or close the tapered roller bearing facility because of the company's reduced demand for tapered roller bearings (resulting from the shift to front wheel drive cars) coupled with the fact that the plant's tapered roller bearing operation had not been competitive in the industry. 1/ In October 1981, GM sold the tapered roller bearing plant to the plant's employees, making it one of the first major employee buyouts of a company in the United States. At the time of the sale, the Hyatt Clark plant was the highest paid UAW plant in the country, had not made a profit for the previous 5 years of its operations, and was an "antiquated" facility. 2/

The employees of Hyatt Clark borrowed \$53 million to buy the plant from GM; financing was provided by \$40 million in commercial loans and by GM's purchase of \$13 million in Hyatt Clark Industries notes and \$10 million in nonvoting preferred stock. 3/ The purchase was conditional on the employees acceptance of a 25 percent pay cut, on GM's guarantee of some commercial loans, and on GM's agreement to buy at least *** percent of its tapered roller bearing needs from Hyatt Clark. 4/

Throughout the 1982-85 period, Hyatt Clark had a public history of poor labor relations. The union local representing workers at Hyatt Clark had been labeled as militant, and the employees "staged a work slowdown in the summer of 1984 that reduced the plant's production rate by more than 20 percent for three months." 5/ Most of the labor problems centered around worker partici-

1/ Press release of New Departure Hyatt Bearings, Oct. 30, 1981.

2/ "How Workers Saved Their Jobs," New York Times, Apr. 18, 1982, XI, p. 36; "Worker-Owned Hyatt Clark Industries Looks for Buyer After GM Refuses Loan," Wall Street Journal, Sept. 10, 1985, p. 7; "A Noble Experiment Goes Bankrupt," New York Times, May 3, 1987, III, p. 1. Two articles reported that by 1981, the layout and equipment at the Clark plant were obsolete essentially because GM failed to invest in the facility throughout the 1970's, providing only "paltry" investments. See "A Noble experiment goes Bankrupt," "Worker Owned Hyatt-Clark Industries Looks for Buyer After GM refuses Loan," and "An Experiment in Worker Ownership Faces A Crucial Test At Jersey Plant," New York Times, Dec. 14, 1984, II, p. 2.

3/ "GM New Jersey Plant is Sold to Employees in \$53 Million Transfer," Wall Street Journal, Nov. 2, 1981, p. 37.

4/ Ibid., and telephone conversations with officials of Hyatt Clark Industries and General Motors.

5/ "A Noble Experiment Goes Bankrupt," New York Times, May 3, 1987, p. 1.

pation in the decision-making process and distribution of company profits. The labor-management relationship at Hyatt Clark has been called "militant," "acrimonious," and "combative," and several newspaper articles cited authorities who reported that any failure of the Hyatt-Clark "experiment" must be attributed to the inability of labor and management to cooperate. 1/

During the work slowdown in 1984, GM threatened to take its tapered roller bearing business elsewhere--essentially a threat to close the plant unless a labor agreement could be reached by a stipulated deadline. A 3-year contract with a no-strike, no-lockout clause satisfied GM and kept the plant open. 2/ However, Hyatt Clark was officially for sale by September 1985, after GM would not lend Hyatt Clark the money for new equipment and modernization. 3/ A purchase agreement to buy the company fell through when GM refused to continue to guarantee \$23 million of Hyatt Clark's debt under new ownership. 4/ Shortly thereafter, Hyatt Clark filed for protection under Chapter 11 of the U.S. Bankruptcy Code after a \$3.6 million loan was called in by one of its creditors. 5/ Since that time, Hyatt Clark has been phasing out production at the plant through an orderly liquidation, and will cease production * * *.

Although Hyatt Clark had a history of labor problems and was a troubled plant prior to employee-ownership, the President of Hyatt Clark reported in a letter to the Commission in its preliminary investigation that "Hyatt Clark Industries went into Chapter 11 of the Bankruptcy Code on January 14, 1986, as a direct result of the price action of the Japanese manufacturers; namely, NTN, and the resulting price action by Timken." 6/ The implication of this statement and the remainder of the letter is that price suppression in the U.S. market--initiated by NTN and reacted to by Timken--eventually caused GM to find another supplier of tapered roller bearings. An official at General Motors (* * *) and another official at Hyatt Clark (* * *) indicated * * *.

GM's relationship with Hyatt Clark was one of * * *.

* * * * * 7/
* * * * * 8/

1/ Ibid., "An Experiment in Worker Ownership Faces Crucial Test at Jersey Plant," and "Worker-Owned Hyatt Clark Industries Looks For Buyer After GM Refuses Loan."

2/ "Wage Pact keeps a Company Open," New York Times, Dec. 18, 1984, II, p. 2; "Union Approves Hyatt Clark Pact," New York Times, Dec. 22, 1984, p. 26.

3/ "Worker-Owned Hyatt Clark Industries Looks For Buyer After GM Refuses Loan."

4/ "LSB Pact to Acquire Hyatt Clark Is Ended," Wall Street Journal, Dec. 27, 1985, p. 5.

5/ "Business Briefs," Wall Street Journal, Jan. 16, 1986.

6/ Letter to the Commission, Sept. 19, 1986.

7/ Telephone conversation with Hyatt Clark official, Apr. 20, 1987.

8/ In its response to the Commission's questionnaires, Hyatt Clark's price data indicated that * * *.

Although Hyatt Clark was attempting to reorganize under Chapter 11, * * *. 1/

* * *. Officials at Hyatt Clark indicate that their company was unable to branch out of the automotive OEM market into other market segments for tapered roller bearings such as * * * and "the low end of the market (conveyor rolls, auto aftermarket, and trailer hubs)" because of aggressive price action between Timken and the Japanese and the entry of the Eastern Europeans and Chinese in the low end of the market. 2/

U.S. importers

There are more than 30 importers of all tapered roller bearings from the 6 countries subject to investigation, but most of these are importers of tapered roller bearings from Japan. There are only about 16 importers of tapered roller bearings subject to investigation, since the remaining imports are of 0-4 inch tapered roller bearings from Japan covered under the outstanding dumping order. All of the importers of tapered roller bearings from the East European countries and China are bearing distributors, with the exception of * * *. Table 3 presents the major U.S. importers of tapered roller bearings and their share of 1986 imports, by value.

Table 3.--Tapered roller bearings: Major U.S. importers and their share of 1986 imports, by value 1/

Importer	Country	Share of imports from country of origin 2/ <u>percent</u>
*	*	*
*	*	*
*	*	*
*	*	*
*	*	*

1/ Finished tapered roller bearings only.

2/ As a share of total imports as reported in questionnaire responses.

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

1/ Telephone conversation with Hyatt Clark official, Apr. 20, 1987. In addition, an article published in American Metal Market reports that Hyatt Clark officials were suggesting "[Timken] had engaged in highly aggressive pricing in order to win Hyatt's contract away at the probable cost of the firm's survival." Timken reportedly had prices about 10 percent lower than Hyatt's, thus enabling Timken to acquire the \$50 million GM business. See "Hyatt Clark Faces Closing Next Year," American Metal Market, Nov. 17, 1986, p. 1. Given the extent of GM's investment in Hyatt Clark (\$*** in loan guarantees, notes, and stock) it is unlikely that the automaker would shift suppliers on the basis of a 10 percent price cut knowing that bankruptcy would be the inevitable result for Hyatt Clark.

2/ Letter to the Commission from Howard Kurt, President, Hyatt Clark Industries, Sept. 19, 1986; telephone conversation with Steve Bonham, Vice-President of Finance, Hyatt Clark Industries.

Until 1986, * * *. SKF is virtually the sole importer of tapered roller bearings from Italy. 1/ The sales organizations of NTN and Koyo are the major importers of Japanese tapered roller bearings, accounting for nearly *** percent of all tapered roller bearing imports from Japan. Six importers account for all imports of tapered roller bearings from China, and five importers account for all imports of tapered roller bearings from Romania.

The U.S. market

The U.S. market for tapered roller bearings has historically been the automotive market, since automobiles typically use a number of tapered roller bearings, especially on axles, wheel hubs, and in differentials and transmissions. Fifty-nine percent of the volume of total U.S. consumption of tapered roller bearings in 1986 was accounted for by the automotive and automotive-related original equipment manufacturers (OEMs). This share was virtually unchanged for the years 1984-86 (table 4). The second largest submarket was the aftermarket, which accounted for about 15 percent of 1986 consumption. OEM sales represented 85.1 percent of all U.S. consumption in 1986.

The relative stability of the share of the automotive market for the U.S. tapered roller bearing industry is surprising given the general acceptance in the industry that there has been a declining demand for tapered roller bearings by the auto industry. The increased popularity of front wheel drive cars as well as the demand by the automakers for more lightweight auto components is generally accepted as a cause for product shifting to ball bearings and needle bearings. 2/ In its section 332 report on the competitive assessment of the U.S. ball and roller bearing industry, the Commission's report stated:

Tapered roller bearings and parts were the only major type of bearing to experience a decline during 1980-84, decreasing by 4 percent to \$879.5 million in 1984. This decrease was caused largely by a decision by the automotive industry to change its product mix in favor of lighter cars and trucks that utilize more ball bearings and less tapered roller bearings. 3/

Industry sources indicate that General Motors now uses ball bearing cartridge units of its own design for both the front and rear axles of its new cars, and Ford is the only domestic producer using any tapered roller bearings for its front wheel drive automobiles. The shift to ball bearings has occurred simultaneously with a major increase in new production of front wheel drive cars; counsel for the Japanese respondent Koyo Seiko Ltd. provided data that indicated that front wheel drive production increased from 30 percent in 1980 to 50 percent in 1983, and is estimated to be 70 percent in 1986. 4/

1/ * * *.

2/ Competitive Assessment of the U.S. Ball and Roller Bearing Industry, USITC Publication 1797, January 1986, p. 11. See also conference transcript, p. 62.

3/ Ibid., p. xi.

4/ Respondents' post-conference brief, p. 27.

Table 4.--Tapered roller bearings: Shares (by quantity) of U.S. producers' domestic shipments, shipments of imports, and apparent consumption accounted for by types of markets, 1984-86 1/

(In percent)

Item	U.S. producers' shipments			Imports from Japan			Imports from Hungary, China, Romania, Yugoslavia			U.S. apparent consumption 5/		
	1984	1985	1986	1984	1985	1986	1984	1985	1986	1984	1985	1986
Auto and auto related....	***	***	***	***	***	***	-	-	-	56.2	57.8	58.7
Aftermarket.....	***	***	***	***	***	***	***	***	***	15.3	15.2	14.9
Other industrial 3/.....	***	***	***	***	***	***	***	***	***	***	***	***
Truck-trailer.....	***	***	***	***	***	***	-	-	-	5.4	5.6	5.2
Agricultural equipment...	***	***	***	***	***	***	-	-	-	***	***	***
Material handling.....	***	***	***	***	***	***	-	-	-	***	***	***
Conveyors.....	***	***	***	***	***	***	***	***	***	2.5	2.1	2.0
Utility trailer and non-driving axles.....	***	***	***	***	***	***	***	***	***	4.9	5.0	5.1
Railroad.....	***	***	***	2/	2/	2/	-	-	-	***	***	***
Rolling Mill.....	***	2/	2/	-	-	-	-	-	-	2/	2/	2/
All other markets 4/.....	***	***	***	-	-	-	-	-	-	***	***	***
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ SKF's shipments (of both domestic and imported product) are not included in this table because the firm could not provide the quantity of shipments by market. This table does not include imports from countries not subject to investigation.

2/ Less than 0.05 percent.

3/ Aircraft, gears and gear boxes, machine tools, mining, oil drilling equipment, pumps, miscellaneous machinery.

4/ Federal government.

5/ U.S. producers' shipments plus shipments of imports from Japan, Hungary, China, Romania, and Yugoslavia.

NOTE: Because of rounding, figures may not add to totals shown.

Source: Compiled from questionnaire responses of the U.S. International Trade Commission.

There are several possible explanations for the stability of the share of the auto market during 1984-86, although the overall share of apparent consumption accounted for by auto and auto-related industries has declined from the levels of the mid-1970's. 1/ One explanation is that the major structural changes in the auto industry and the consequent impact on the tapered roller bearing industry occurred prior to 1984, the earliest year for which the Commission collected market data. A second possible explanation is that given the degree of demand by the auto industry during the years 1984-86, the demand for tapered roller bearings other than those displaced by front-wheel drive was sufficiently high to offset the expected decline in demand caused by front-wheel drive. 2/

Finally, there is the possibility that the overall structure of U.S. demand for tapered roller bearings has not changed that significantly in recent years. The U.S. tapered roller bearing industry serves a set of mature industrial markets (autos, truck-trailer, material handling, agricultural machinery) that have all had generally similar economic experiences in the United States. These U.S. manufacturing industries have been challenged by imports of finished product, thus reducing the U.S. manufacturing base and manufacturing demand for components for these products. Consequently, the relative shares accounted for by each market would remain relatively constant, as would the cycles of demand. In this type of situation, the volume of the market would be expected to diminish over time, but not its overall composition. Table 5 presents the shares of consumption for each submarket accounted for by the U.S. producers and by imports, and figure 3 presents the pattern of U.S. consumption of tapered roller bearings for the years 1980-86. 3/

In general, as is seen in table 4, the shares of consumption accounted for by each submarket were relatively constant throughout 1984-86. However, there were some shifts in terms of the share of each market accounted for by

1/ In its 1975 findings on LTFV imports of tapered roller bearings from Japan, the Commission noted in its opinion that "Almost two-thirds of all tapered roller bearings consumed in the United States are used in the automotive and automotive related industries." Tapered Roller Bearings and Certain Components Thereof from Japan, ITC Publication 714, January 1975. This 66-percent share of total consumption is higher than the 59-percent share established in these current investigations (see table 4, above).

2/ The Commission's report "Competitive Assessment of the U.S. Ball and Roller Bearing Industry" stated "The motor-vehicle industry, particularly manufacturers of cars, trucks, and trailers, is easily the largest source of U.S. demand for [all types of] bearings. Demand from this industry was reported to be near record levels during 1984-85." (p. 60.)

3/ The brief glimpse of tapered roller bearing consumption presented in fig. 3 does seem to show parts of two business cycles, with the cycle occurring later in time moving at levels generally lower than the preceding cycle. This downward movement may be attributable to price suppression resulting from greater competition in the market, as is discussed in the pricing section in this report, as well as to declining overall demand for tapered roller bearings. However, comparing 1983 with 1986, the change in apparent consumption was virtually the same for both volume and value (-0.7 percent and 0.2 percent, respectively). One would tend not to expect this trend in a severely competitive price environment unless there were accompanying shifts in the product mix. Quantity data are not available for the years prior to 1983.

Table 5.--Tapered roller bearings: Shares (by quantity) of markets accounted for by U.S. producers' domestic shipments and imports, 1984-86 1/

Item	(In percent)											
	U.S. producers' shipments			Imports from Japan			Imports from Hungary, China, Romania, Yugoslavia			U.S. apparent consumption <u>4/</u>		
	1984	1985	1986	1984	1985	1986	1984	1985	1986	1984	1985	1986
Auto and auto related....	77.3	76.2	73.9	22.7	23.8	26.1	-	-	-	100.0	100.0	100.0
Aftermarket.....	90.7	88.9	87.9	1.8	2.5	3.1	7.5	8.6	9.0	100.0	100.0	100.0
Other industrial <u>2/</u>	56.2	58.8	69.6	43.7	41.1	30.3	0.1	0.1	0.1	100.0	100.0	100.0
Truck-trailer.....	87.2	79.8	79.7	12.8	20.2	20.3	-	-	-	100.0	100.0	100.0
Agricultural equipment...	52.8	48.2	75.4	47.2	51.8	24.6	-	-	-	100.0	100.0	100.0
Material handling.....	61.1	63.0	49.3	38.9	37.0	50.7	-	-	-	100.0	100.0	100.0
Conveyors.....	10.7	13.0	17.7	80.3	80.7	75.9	9.0	6.3	6.4	100.0	100.0	100.0
Utility trailer and non-driving axles.....	3.4	3.9	4.8	8.0	10.6	11.5	88.6	85.5	83.8	100.0	100.0	100.0
Railroad.....	98.4	97.4	98.8	1.6	2.6	1.2	-	-	-	100.0	100.0	100.0
Rolling Mill.....	100.0	100.0	100.0	-	-	-	-	-	-	100.0	100.0	100.0
All other markets <u>3/</u>	100.0	100.0	100.0	-	-	-	-	-	-	100.0	100.0	100.0

1/ SKF's shipments (of both domestic and imported product) are not included in this table because the firm could not provide the quantity of shipments by market. This table does not include imports from countries not subject to investigation.

2/ Aircraft, gears and gear boxes, machine tools, mining, oil drilling equipment, pumps, miscellaneous machinery.

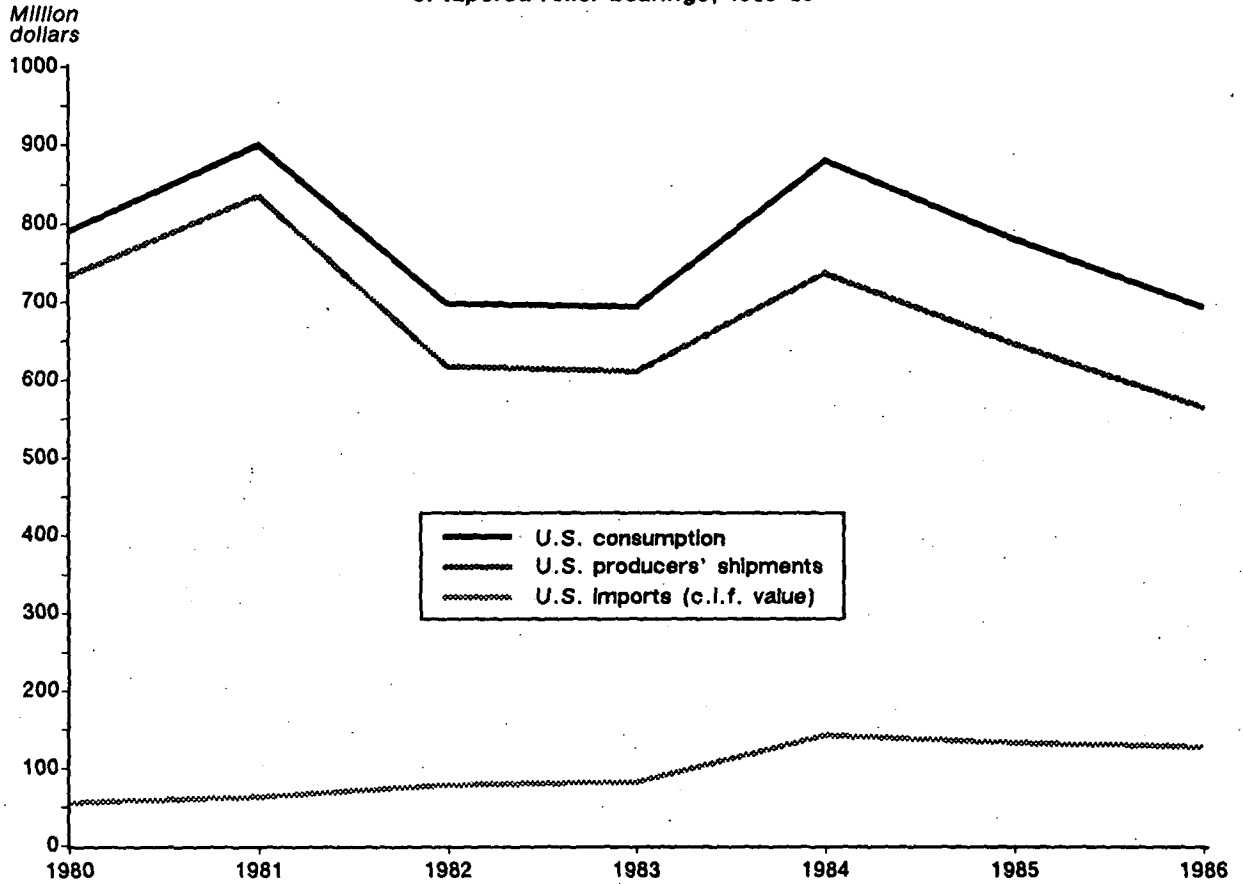
3/ Federal government.

4/ U.S. producers' shipments plus shipments of imports from Japan, Hungary, China, Romania, and Yugoslavia.

NOTE: Because of rounding, figures may not add to totals shown.

Source: Compiled from questionnaire responses of the U.S. International Trade Commission.

Figure 3. Apparent U.S. consumption, U.S. producers' shipments, and U.S. imports of tapered roller bearings, 1980-86



Source: Compiled from questionnaire responses of the U.S. International Trade Commission, USITC Publication 1797, *Competitive Assessment of the U.S. Ball and Roller Bearing Industry* (Inv. No. 332-211), and official statistics of the U.S. Department of Commerce. U.S. producers' shipments for 1980-82 have been adjusted to reflect shipments of producers not responding to Inv. No. 332-211.

U.S. producers' shipments and imports. As is seen in table 5, the U.S. producers' lost market share to the Japanese in the auto and auto-related market, the truck-trailer market, and the material handling market. In addition, U.S. producers lost a 2.9 percentage point share of the aftermarket to imports from Japan (which gained 1.4 percentage points) and from Hungary, Romania, China, and Yugoslavia (which gained 1.6 percentage points). However, the U.S. producers' gained market shares at the expense of Japanese imports in the agricultural equipment, conveyor, and "other industrial" markets. The U.S. industry also gained market shares at the expense of the East European and Chinese bearings in the conveyor and utility trailer markets, two of the three markets served by these bearings. The East European and Chinese bearings, however, lost more market share to Japanese imports than U.S. bearings in the utility trailer/nondriving axle market. The actual volume of sales declined in all market categories except material handling, which increased 12 percent.

U.S. consumption

There is very little seasonality with regard to U.S. consumption of tapered roller bearings, primarily because the broad industrial base of the market allows for independent industry consumption trends to offset each other. There appears to be about a 4- to 6-year business cycle to the tapered roller bearing industry; consumption declined from 1981 to 1983 because of the recession; increased from 1983 to 1984 when consumption peaked, and has been declining since then. Industry officials indicate that this is a typical cycle, but with the downturns not normally as abrupt as was seen from 1981 to 1982. ^{1/}

Apparent U.S. consumption of tapered roller bearings reached \$895 million in 1984, the peak year of consumption in terms of both quantity and value during the 1983-86 period (table 6). The trend in consumption for the period subject to investigation is the same for both volume and value: consumption increased sharply from 1983 to 1984 and declined from 1984 to 1986, but with 1986 consumption levels 0.7 percent lower by quantity and 0.2 percent higher by value when compared with 1983 levels. Figure 3 suggests that the trend in apparent consumption from 1983 to 1986 represents a nearly complete "wave" in the business cycle for tapered roller bearings, with the cycle beginning with the trough in 1982-83 and ending with a trough in 1987 or 1988.

Channels of distribution

About 85 percent of all tapered roller bearings are sold to OEM's, with the remainder going to the aftermarket (table 4). While most tapered roller bearings sold to OEM's are cone assemblies or sets, the aftermarket for these bearings is primarily of individually packaged sets. Most of the importers of products subject to these investigations are bearing distributors; however, like the U.S. producers, they also sell overwhelmingly to OEM's. The two largest importers of Japanese tapered roller bearings, the sales affiliates of NTN and Koyo, operate sales establishments separately from their production establishments; the sales organizations do all of the importing into the

^{1/} Conference transcript, pp. 54 and 55.

Table 6.--Tapered roller bearings: Apparent U.S. consumption, 1983-86

Item	1983	1984	1985	1986
	Quantity (1,000 units)			
Sets.....	13,491	21,864	19,565	19,422
Cone assemblies.....	125,663	151,054	127,245	118,354
Cups.....	126,316	154,629	132,107	125,822
Total.....	265,470	327,547	278,917	263,599
All other bearing parts and components 1/.....	2/	2/	2/	2/
	Value (1,000 dollars)			
Sets.....	160,400	200,908	178,262	136,483
Cone assemblies.....	361,102	460,520	401,858	354,731
Cups.....	182,460	234,027	212,795	214,044
Total.....	703,965	895,455	792,913	705,260
All other bearing parts and components 1/.....	3/ ***	3/ ***	3/ ***	3/ ***

1/ Parts and components are purchased only by U.S. tapered roller bearing producers.

2/ Data for these products are not reported in meaningful units of quantity.

3/ As reported in U.S. producers' questionnaire responses regarding shipments, purchases, and imports of tapered roller bearing parts and components.

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

United States and sell the imported bearings as well as all of the U.S.-produced bearings (the U.S.-produced bearings are transferred at a market rate to the sales organization). Timken's sales to distributors are made only to authorized Timken dealers, and SKF also sells to the aftermarket through an organized distributor network. Other than NTN and Koyo, the remaining U.S. producers have no special distribution arrangements.

Summary of the U.S. Industry and Market

The U.S. market for tapered roller bearings is overwhelmingly for the finished product--tapered roller bearing sets, cone assemblies, and cups--used by original equipment manufacturers. The secondary market--the aftermarket for replacement bearings--is also a market for finished bearings, but primarily a market for tapered roller bearing sets. A residual market for finished and unfinished components of bearings also exists, but this market is composed of tapered roller bearing producers who require components to fill short-term material shortages, or who finish the components into complete bearings. Of the 10 U.S. producers who manufactured tapered roller bearings during the period of investigation, 7 are "ground-up" manufacturers (they begin with steel bar or tubing) and 3 are finisher/assemblers (they finish

rough-ground components). Of these three finishers, two--NTN and Koyo--are wholly-owned subsidiaries of a Japanese parent. One other U.S. producer, SKF, is also nearly a wholly-owned subsidiary, but of a Swedish parent.

Although there are a number of U.S. producers and importers, the U.S. market for tapered roller bearings is dominated by few actors. Timken and SKF have been the principal U.S. producers, as NTN, Koyo, and * * * have been the principal importers. Nearly all bearings consumed in the United States are manufactured in the United States or Japan, with only one small market segment (utility trailers and nondriving axles) being dominated by imports from Hungary, Romania, Yugoslavia, and China. The majority of imports from these four countries are distributed through three firms--* * *. In total, eight establishments can be said to be the significant actors in the U.S. tapered roller bearing market.

Other than the introduction of NTN as a new U.S. producer in * * *, there have been no other major entries into or departures from the U.S market, either producer or importer, in the past decade. However, Hyatt Clark Industries will cease to exist as a U.S. bearing producer after * * * of this year, and * * *. The performance of * * * firms has had a distorting effect on the performance of the industry as a whole, as will be discussed in the injury section of this report.

Related Party Issues

Counsel for the petitioner has argued that Federal Mogul, NTN-Bower, NTN, Koyo, and SKF should be excluded from the domestic industry as related parties in accordance with section 771(4)(B) of the Tariff Act of 1930 (19 U.S.C. 1677(A)(B)). Federal Mogul is 100-percent owned by the stockholders of the corporation; NTN-Bower is a * * * joint venture started in 1986 with * * *. Both NTN and Koyo are wholly owned subsidiaries of their Japanese parents, as are their U.S. affiliates and sales organizations, NTN Bearing Corp. of America (NBCA) and American Koyo Corp. (AKC). These two sales affiliates are the major importers of tapered roller bearings from Japan. SKF is virtually a wholly owned (* * *) subsidiary of its Swedish parent, as is its Italian affiliate, RIV-SKF Italy.

* * * * *
* * * * *

Consideration of Alleged Material Injury 1/

The trends in the aggregate injury indicators for the U.S. tapered roller bearing industry all generally reflect the same pattern: strong improvement from 1983 to 1984 as U.S. consumption of tapered roller bearings peaked, followed by a steady decline from 1984 to 1986. In addition, a sharp decrease in the indicators occurred between 1985 and 1986, and the 1986 levels of each variable (i.e. quantity and value of shipments, production, employment, etc.) are below 1983 levels.

However, the aggregate industry trends are strongly influenced by two firms--* * * and * * *. The experience of these companies has been * * *.

* * * * *
 * * * * *

Capacity, production, and capacity utilization

The capacity of the tapered roller bearing industry to produce such bearings has declined slightly over the period under investigation, in spite of the addition of a new producer * * *. The key products with which to evaluate capacity, production, and capacity utilization, as presented in table 7, are cone assemblies and cups. These data also include those cone assemblies and cups used to produce tapered roller bearing sets. (Since the producers defined their capacity to produce sets in various ways, the capacity of the industry to actually produce sets, as distinct from the minor assembly operation of putting a cone assembly and cup together, is unreliable.)

The U.S. producers' capacity to produce cone assemblies declined 4.6 percent, while capacity to produce cups declined by 2.8 percent from 1983 to 1986. Changes in capacity were rather dynamic throughout the period--nearly all producers added new capacity or retired outmoded, excess machinery. Productive capacity expanded * * * with the addition of American NTN as a producer; however, this addition was not enough to offset the contraction of capacity by many other U.S. producers, especially SKF, which closed one plant * * *. The transfer of Federal Mogul's two plants to NTN-Bower did not affect the capacity or operations of those plants. Timken is phasing out production at one of its older, unionized plants over the next 3 years.

1/ In this discussion of alleged material injury, the data are based on complete questionnaire responses for all U.S. tapered roller bearing producers. In general, finished and unfinished components are not discussed; these parts are all processed into finished articles by the U.S. producers. In addition, mounted-bearing units are not discussed since * * * manufactured this item (production increased *** percent from 1984 to 1986, from *** to *** units). Data on cartridge bearing units are included in the data on tapered roller bearing sets.

Table 7.--Tapered roller bearings: U.S. producers' production, capacity, and capacity utilization, 1983-86 1/

Item	1983	1984	1985	1986
Capacity: 2/				
Sets.....1,000 units..	3/	3/	3/	3/
Cone assemblies.....do..	180,629	177,249	179,471	172,275
Cups.....do..	185,033	180,257	185,733	179,942
Production:				
Sets.....1,000 units..	13,440	14,583	13,285	12,246
Cone assemblies.....do..	92,481	118,866	102,475	89,929
Cups.....do..	101,039	117,383	107,793	90,640
Capacity utilization:				
Sets.....percent..	4/	4/	4/	4/
Cone assemblies.....do..	51.2	67.1	57.1	52.2
Cups.....do..	54.6	65.1	58.0	50.4

1/ The data in this table exclude data reported by * * * because of statistical discrepancies in the company's questionnaire response.

2/ There is no industry standard for the hours of operation of the manufacturing plants. Timken operates its plants *** shifts per day, *** days a week, *** weeks per year, but the other companies vary from *** to *** shifts a day, *** to *** days a week, and *** to *** weeks per year.

3/ The capacity to produce tapered roller bearing sets was not reported in a comparable manner by the U.S. producers.

4/ Capacity utilization cannot be reliably calculated for this item.

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

* * * * *

The production of cone assemblies declined 2.8 percent from 1983 to 1986, and production of cups decreased 10.3 percent during this period. The U.S. industry's production of tapered roller bearing sets also declined, by 8.9 percent, during the period investigated.

Capacity utilization for cone assemblies increased slightly from 1983 to 1986, from 51.2 percent to 52.2 percent. Capacity utilization for cups dropped slightly from 1983 to 1986, from 54.6 percent in 1983 to 50.4 percent in 1986. The generally low utilization rates for the industry are explained by both actual idled equipment as well as the high productive capacity of the machinery and equipment.

U.S producers' domestic and export shipments

The total quantity of U.S. producers' domestic shipments of tapered roller bearing sets, cone assemblies, and cups declined 13.7 percent from 1983 to

1/ Interview with officials of The Timken Co., Sept. 12, 1986.

1986, while the value of these shipments decreased 7.4 percent (table 8). Shipments of U.S.-produced tapered rollers and tapered roller bearing parts were * * *; the volume of these shipments cannot be meaningfully calculated but the value of shipments of parts showed a net increase from 1983 to 1986, from \$*** to \$***. The U.S. industry's exports of tapered roller bearings declined 15.9 percent by quantity, but increased 36.6 percent by value from 1983 to 1986.

Table 8.--Tapered roller bearings: U.S. producer's shipments, 1983-86

Item	1983	1984	1985	1986
	Quantity (1,000 units)			
Domestic shipments:				
Sets.....	9,720	10,246	8,474	6,913
Cone assemblies.....	88,197	99,001	85,178	77,990
Cups.....	92,474	100,925	89,433	79,346
Subtotal.....	190,391	210,172	183,085	164,249
Parts.....	1/	1/	1/	1/
Exports.....	***	***	***	***
	Value (1,000 dollars)			
Domestic shipments:				
Sets.....	141,531	164,346	145,622	102,753
Cone assemblies.....	315,729	386,591	332,238	292,819
Cups.....	155,350	188,047	170,536	171,835
Subtotal.....	612,610	738,984	648,396	567,407
Parts.....	***	***	***	***
Total.....	***	***	***	***
Exports.....	***	***	***	***

1/ * * *. These items do not have comparable units of quantity.

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

U.S. producers' inventories

U.S. producers' yearend inventories of tapered roller bearing sets, cone assemblies, and cups increased slightly from 1983 to 1986, both in absolute volume and as a share of shipments (table 9). The volume of yearend inventories increased by 0.4 percent, from 1983 to 1986. As a share of shipments, inventories of tapered roller bearings rose slightly, from *** percent in 1983 to *** percent in 1986. The overall high ratio of inventories to shipments (*** percent) is due to the fact that * * *; in addition, the increase in inventories as a share of shipments is attributable to the fact that * * *.

U.S. producers' purchases

From 1984 to 1986, the U.S. producers imported increasing numbers of finished tapered roller bearings. During this 3-year period, the quantity of

Table 9.--Tapered roller bearings: U.S. producers' end-of-period inventories, 1983-86

Item	1983	1984	1985	1986
Quantity of inventories:				
Sets.....1,000 units..	***	***	***	***
Cone assemblies.....do..	***	***	***	***
Cups.....do..	***	***	***	***
Total.....do..	***	***	***	***
Inventories as a share of shipments:				
Sets.....percent..	***	***	***	***
Cone assemblies.....do..	***	***	***	***
Cups.....do..	***	***	***	***
Total.....do..	***	***	***	***

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

imports of tapered roller bearings by U.S. producers more than doubled, from *** in 1984 to *** in 1986 (table 10). The share of the U.S. producers' imports accounted for by countries subject to investigation stayed constant at *** percent during 1984-86. * * * 's imports from countries not subject to investigation accounted for *** percent (by quantity) of all U.S. producers' imports of finished bearings. * * * was unable to provide import data, but the company imported * * *. * * *.

U.S. producers' purchases of finished bearings, about *** the volume of their imports in 1986, declined *** percent from 1984 to 1986. * * *.

Imports of finished tapered roller bearing parts consisted exclusively of * * *. The value of these imports increased steadily, from \$*** during 1984 to \$*** during 1986. * * *. The industry's imports of unfinished parts consisted exclusively of * * *. The volume of these imports increased *** percent from 1984 to 1986. * * *. The U.S. producers' imports of tapered roller bearing parts are shown in the following tabulation:

Item	1984	1985	1986
Imports of finished parts:			
Total.....	* * *	* * *	* * *
Imports from countries subject to investigation.....	* * *	* * *	* * *
Imports of unfinished parts			
Cups and cones:			
Total.....	* * *	* * *	* * *
Imports from countries subject to investigation.....	* * *	* * *	* * *

Table 10.--Tapered roller bearings: U.S. producers' purchases and imports, 1984-86

Item	1984	1985	1986
Imports of finished bearings			
From countries subject to investigation:			
Total quantity.....1,000 units..	***	***	***
Total value.....1,000 dollars..	***	***	***
From all other countries:			
Total quantity.....1,000 units..	***	***	***
Total value.....1,000 dollars..	***	***	***
Total:			
Quantity.....1,000 units..	***	***	***
Value.....1,000 dollars..	***	***	***
Purchases of finished bearings			
Total quantity.....1,000 units....	***	***	***
Total value.....1,000 dollars....	***	***	***

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

U.S. employment and wages

The number of production and related workers employed in the manufacture of tapered roller bearings declined by 9.5 percent from 1983 to 1986, from 7,506 to 6,792 workers (table 11). Average hourly wages declined by 3.4 percent from 1983 to 1986, from \$12.88 to \$12.45. Average total hourly compensation declined from \$16.48 to \$14.98 during the same period. Employee earnings in the industry are based both on hourly rates and piece rates.

Six firms producing tapered roller bearings--***--reported major layoffs of workers from 1983 to 1986. After substantially increasing their workforces from 1983 to 1984, all of these firms instituted both indefinite and permanent layoffs of their workforce. *** had *** layoffs involving more than *** workers, and *** had *** permanent layoff of *** bearing workers. In addition, ***, and ***. In spite of these layoffs, four firms, including *** and ***, registered a net increase in the number of workers employed.

Tapered roller bearing workers are unionized by establishment and not by firm. Timken's Canton and Columbus, OH, plants (** establishments) are represented by the United Steel Workers, as are SKF's employees. Timken's other plants are not unionized. Hyatt Clark, an employee-owned company, and one of Federal Mogul/NTN-Bower's plants is represented by the United Auto Workers. Koyo, Brenco, NTN, and Torrington are not unionized; workers at L&S Bearing and one of NTN-Bower's other plants are represented by aerospace and machinists locals. The average total hourly compensation of workers not belonging to unions ranged from ***, whereas it ranged *** for unionized labor. ***. Timken's workers at its Ohio plants were on strike for the period *** 1986, and Hyatt Clark's workers staged a work slowdown during the summer of 1984.

Table 11.--Average number of production and related workers engaged in the manufacture of tapered roller bearings, hours worked by such workers, wages paid, and total compensation, 1983-86

Period	Number of workers	Hours	Wages	Total
		worked Thousands	paid	compensation Per hour
1983.....	7,506	14,509	\$12.88	\$16.48
1984.....	9,149	18,678	12.19	15.38
1985.....	7,694	15,163	12.79	16.69
1986.....	6,792	12,973	12.45	14.98

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

Financial experience of U.S. producers

All 10 U.S. producers who manufactured tapered roller bearings during the period 1984 to 1986 supplied usable income-and-loss data for both their establishment and tapered roller bearing operations. These data are discussed separately below.

Overall establishment operations.--Aggregate net sales increased by 46.5 percent from \$*** in 1983 to \$*** in 1984 (table 12). In 1985, sales decreased by 8.5 percent to \$***. Sales for 1986 were \$***, a decline of 9.6 percent from 1985. The companies incurred an operating loss of \$*** in 1983, reported operating income of \$*** in 1984, and sustained operating losses of \$*** in 1985 and \$*** in 1986. Operating income (loss) margins, as a percent of sales, were (7.1), 2.7, (1.7), and (1.1) during 1983-86, respectively. Four firms reported operating losses in 1983, three firms in 1984 and five firms in 1985 and 1986.

Operations on tapered roller bearings.--Aggregate net sales increased by 32.6 percent from \$*** in 1983 to \$*** in 1984 (table 13). ^{1/} In 1985, sales decreased by 11.5 percent to \$***. Sales for 1986 were \$***, a decline of 10.2 percent from 1985. The companies incurred an operating loss of \$*** in 1983, reported operating income of \$*** in 1984, and sustained operating losses of \$*** in 1985 and \$*** in 1986. Operating income (loss) margins, as a percent of sales, were (7.3), 3.0, (4.5), and (0.7) during 1983-86, respectively. Three firms reported operating losses in 1983 and 1984, six firms in 1985, and five firms in 1986.

Operations of the Timken Company.--Timken accounted for *** percent of the 1986 sales figure shown in table 13. Accordingly, its operations are discussed separately. The company's major product lines are antifriction bearings and alloy steels. Bearings are manufactured in the United States, Great Britain, France, Australia, Brazil, Canada, and South Africa. Overseas operations of the Timken Company have been profitable in recent years. Alloy

^{1/} L&S Bearing and Torrington were not able to provide profit-and-loss data for 1983. However, their data are included for the years 1984-86. Since these two firms accounted for only *** percent of U.S. producers' shipments in 1983, the trends for 1983-86 are reliable indicators for the industry.

Table 12.--Income-and-loss experience of 10 U.S. producers on the overall operations of their establishments within which tapered roller bearings are produced, accounting years 1983-86 1/ 2/

Item	1983	1984	1985	1986
Net sales.....1,000 dollars..	***	***	***	3/ ***
Cost of goods sold.....do....	***	***	***	***
Gross profit.....do....	***	***	***	***
General, selling, and administrative expenses 1,000 dollars..	***	***	***	***
Operating income (loss) 1,000 dollars..	***	***	***	***
Interest expense.....do....	***	***	***	***
All other income (expense) 1,000 dollars..	***	***	***	4/ ***
Net income (loss) before income taxes..1,000 dollars..	***	***	***	***
Depreciation and amortization expense.....1,000 dollars..	***	***	***	***
Cash flow from operations 1,000 dollars..	***	***	***	***
Ratio to net sales of:				
Cost of goods sold..percent..	88.8	81.3	84.6	83.5
Gross profit.....do....	11.2	18.7	15.4	16.5
General, selling, and administrative expenses percent..	18.3	16.1	17.1	17.6
Operating income (loss) percent..	(7.1)	2.7	(1.7)	(1.1)
Net income (loss) before income taxes.....percent..	(6.5)	1.4	(2.8)	(9.9)
Number of firms reporting--				
Operating losses.....	4	3	5	5
Net losses.....	4	4	6	6
Data.....	6	8	8	9

1/ L&S and Torrington could not provide 1983 data. Federal Mogul, predecessor of NTN-Bower, provided data for 1983-85. American NTN-Bearing provided usable data * * *.

2/ All companies provided data on a calendar-year basis.

3/ Timken suffered a 30-day strike during the last quarter of 1986.

4/ All other income (expense) for 1986 excludes \$*** in income for Timken that resulted from accounting methodology changes.

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

Table 13.--Income-and-loss experience of 10 U.S. producers on their operations producing tapered roller bearings, accounting years 1983-86 1/2/3/

Item	1983	1984	1985	1986
Net sales.....1,000 dollars..	***	***	***	4/ ***
Cost of goods sold.....do....	***	***	***	***
Gross profit.....do....	***	***	***	***
General, selling, and administrative expenses				
1,000 dollars..	***	***	***	***
Operating income (loss)				
1,000 dollars..	***	***	***	***
Interest expense.....do....	***	***	***	***
All other income (expense)				
1,000 dollars..	***	***	***	5/ ***
Net income (loss) before income taxes..1,000 dollars..	***	***	***	***
Depreciation and amortization expense.....1,000 dollars..	***	***	***	***
Cash flow from operations				
1,000 dollars..	***	***	***	***
Ratio to net sales of:				
Cost of goods sold				
percent..	88.3	80.1	85.9	81.9
Gross profit.....do....	11.7	19.9	14.1	18.1
General, selling, and administrative expenses				
percent..	19.0	16.9	18.7	18.7
Operating income (loss)				
percent..	(7.3)	3.0	(4.5)	(0.7)
Net income (loss) before income taxes.....percent..	(6.4)	1.7	(5.4)	(11.2)
Number of firms reporting:				
Operating losses.....	3	3	6	5
Net losses.....	3	5	6	6
Data.....	6	8	8	9

1/ L & S and Torrington did not provide 1983 data. Federal Mogul, predecessor of NTN-Bower, provided data for 1983-85. American NTN-Bearing provided usable data * * *.

2/ All companies provided data on a calendar year basis.

3/ Data from the Timken Company and Hyatt Clark Industries are included in table 13 and are also discussed separately.

4/ Timken suffered a 30-day strike during the last quarter of 1986.

5/ All other income (expense) for 1986 excludes \$*** in income for Timken that resulted from accounting methodology changes.

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

mechanical tubing, alloy brass, and high-alloy specialty steels are produced in the United States. In 1986, the company initiated a restructuring program in order to eliminate * * * and their associated operating costs. As a result, \$*** in charges were taken in 1986. The restructuring and curtailment plan included the announced closing of one of the company's bearing manufacturing plants in Columbus, OH. As part of the effort to reduce costs, the company plans to * * *.

Timken's income-and-loss experience on its operations producing tapered roller bearings is presented in table 14. The company provided the same data for overall establishment operations. Aggregate net sales increased by *** percent from \$*** in 1983 to \$*** in 1984. In 1985, sales declined by *** percent to \$***. A 30-day strike in 1986 was partially responsible for the *** percent decrease in 1986 sales to \$***. The company incurred a \$*** operating loss in 1983, had operating income of \$*** in 1984, sustained an operating loss of \$*** in 1985, then earned an operating income of \$*** in 1986. Operating income (loss) margins, as a percent of sales, were (***), ***, (***), and *** during 1983-86, respectively. Net income (loss) before income taxes followed a similar pattern except for 1986, when a special charge of \$*** was recorded as a result of the corporate restructuring.

Timken indicated that it omitted \$*** in "other income" as a result of accounting methodology changes. This was a cumulative adjustment covering several accounting years. The accounting changes, previously discussed, affect the 1986 operating results as follows:

1. Pension costs reduction of \$*** are included and 1986 operating income was increased by that figure. The pension revisions are applied to fiscal years beginning in 1986 and thereafter, thus changes in prior years operating results are not applicable.
2. Depreciation method changes of \$*** were not included in 1986 operating income. Timken's reasoning was that operating results would not be comparable with prior years. ^{1/} Thus, operating income for 1986 is understated by that amount. Cumulative adjustments in their depreciation data include 1986 and prior years.

In its annual report, Timken cited three major factors that negatively affected its 1986 economic performance. These were price erosion, a volume of business too low in relation to its capacity (primarily in the United States), and a strike of 30 days duration at the company's unionized plants in the United States.

However, there are other factors that benefitted the 1986 operating results of the company and/or its bearing division. These include the operations of its new steel plant and overall steel prices, a change in its * * *, a change in its depreciation method, and its adoption of Financial Accounting Standards Board (FASB) statements Nos. 87 and 88 for pension accounting. Timken's new steel plant, started in 1982 and completed in late

^{1/} Telephone discussion with Stephen Perry, Timken Company, Apr. 9, 1987.

Table 14.--Income-and-loss experience of Timken Company on its operations producing tapered roller bearings, accounting years 1983-86

Item	1983	1984	1985	1986
Net sales.....1,000 dollars..	***	***	***	1/ ***
Cost of goods sold.....do....	***	***	***	***
Gross profit.....do....	***	***	***	***
General, selling, and administrative expenses 1,000 dollars..2/***	***	***	***	***
Operating income (loss) 1,000 dollars..	***	***	***	***
Interest expense.....do....	***	***	***	3/ ***
All other income (expense) 1,000 dollars..	***	***	***	4/ ***
Net income (loss) before income taxes..1,000 dollars..	***	***	***	***
Depreciation and amortization expense.....1,000 dollars..	***	***	***	***
Cash flow from operations 1,000 dollars..	***	***	***	***
Ratio to net sales of:				
Cost of goods sold percent..	***	***	***	***
Gross profit.....do....	***	***	***	***
General, selling, and administrative expenses percent..	***	***	***	***
Operating income (loss) percent..	***	***	***	***
Net income (loss) before income taxes.....percent..	***	***	***	***

1/ The company suffered a 30-day strike during the last quarter of 1986.

2/ Timken has * * * which account for *** percent of all GS&A costs. Total GS&A expenses declined \$*** from 1985 to 1986. Average employment in the bearing division was *** in 1983, *** in 1984, *** in 1985, and *** in 1986.

3/ The increase in interest expense for 1986 includes * * * interest expense allocated to bearings on the basis of sales.

4/ The following items were not included by Timken in all other income (expense) for 1986. (They were indicated in a footnote to their financial data): (1) \$*** in cumulative income resulting from the adoption of FASB Statement No. 88, "Employers accounting for settlements and curtailments of defined benefit pension plans and for termination benefits;" and (2) \$*** in income resulting from the cumulative effect of the company's change in its method of depreciation for substantially all property, plant, and equipment from the accelerated method to the straight-line method effective Jan. 1, 1986.

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

1985 at a cost of approximately \$450 million, employs the latest technology and is designed to produce the highest quality steel at the lowest cost. Bearing production utilizes steel tubing and bars from the new plant, as well as * * *. The company also purchases * * *. Prior to 1986, the company transferred steel to its bearing plants at * * *. Subsequently, management realized that * * *. In 1986, Timken initiated a * * * transfer pricing policy, the effect of which was to * * *. As of January 1, 1986, the company also changed its method of depreciation from the accelerated method to the straight-line method, and adopted FASB Statements 87 and 88. 1/ These changes have the effect of reducing operating expenses.

The accounting changes and 30-day strike cloud the operating results of the Timken Company for the fiscal year ended December 31, 1986. Timken's operating income margin for the 6-month period ended June 30, 1986, was *** percent. That reporting period excluded the 30-day strike and the effect of the retroactive accounting adjustments.

During the hearing of May 12, 1987, Mr. Joseph F. Toot (President of the Timken Company) indicated that Timken's investment value was impaired because of imports. He cited the stock price, lowered bond ratings, and dividend reduction. 2/ A discussion of these items follows.

An investment in the Standard and Poor's 500 stocks has more than doubled since 1981, but a similar investment in Timken stock has been virtually unchanged during the period. However, since the middle of 1986, Timken's stock is up 50 percent. The day of the hearing (May 12, 1987) the price of Timken stock closed at 60-3/4, the Company's highest closing price in over 3 years. The Value Line Investment Survey believes that the stock price is strong because of the asset value of the company (over \$60 per share). In the current financial climate, companies selling below asset value are valued higher despite lackluster performance. Actually, the Timken Company is more than a bearing company, it is also a steel producer and this product line has generally had significant losses during the past few years. Steel related companies have been among the weaker performing equities in recent years. The range of stock prices for Timken company from 1982 to present is indicated below:

	<u>Low</u>	<u>High</u>
1987-Jan. 1 - May 12.....	42-1/2	61
1986.....	39-1/2	53-3/8
1985.....	41-3/8	53
1984.....	49-1/4	67-1/4
1983.....	48-1/4	68-1/4
1982.....	40-3/8	65

1/ Reported in a telephone discussion of * * * and accounting methodology changes with Stephen Perry, Timken Company, Apr. 9, 1987.

2/ Testimony of J.F. Toot, May 12, 1987.

Timken's Bond Credit Ratings by Standard and Poor's and Moody's have declined from 1983 to 1986. 1/ Although these ratings are lower, they still are of reasonable investment grade quality (Standard and Poor is A- instead of AA- and Moody's A-3 instead of A-1). The reduced ratings reflect not only a deteriorating performance but also the additional debt incurred to construct the steel plant. Prior to 1983 all funds were generated internally.

The dividend to shareholders has been cut from \$3.40 in 1981 to \$1.00 in 1986. 2/ The reduction reflects the overall performance of the company. In addition, because of the large expenditure for the steel plant over the past few years, preservation of cash has been important to the company.

Operations of Hyatt Clark Industries.--Hyatt Clark's general experience was discussed earlier in the report. The product line financial data was * * *. The data for Hyatt Clark are presented below (in thousands of dollars):

<u>Item</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Sales:				
Roller bearings.....	***	***	***	***
Establishment.....	***	***	***	***
Ratio of bearing/ establishment sales.....	***	***	***	***
Operating income (loss):				
Roller bearings.....	***	***	***	***
Establishment.....	***	***	***	***
Operating income (loss) as a percent of sales:				
Roller bearings.....	***	***	***	***
Establishment.....	***	***	***	***

The income-and-loss experiences of all U.S. producers are presented separately in table 15. The industry is composed of large and small producers which manufacture diverse lines of tapered roller bearings. Several companies are subsidiaries of foreign companies and some firms import components. The results of the Timken Co. heavily influenced the industry results.

Investment in productive facilities.--U.S. producers' investments in productive facilities for their overall establishments and for their tapered roller bearing operations are shown in table 16. The investment in such facilities for the establishments, valued at cost, was \$709.4 million as of the end of 1983 and \$747.6 million as of the end of 1986. The book value of the assets was \$366.2 million as of December 31, 1986. Total reported investment in productive facilities for tapered roller bearings, valued at cost, was \$680.0 million as of the end of 1983 and \$679.4 million as of the end of 1986. The book value of such assets was \$331.0 million as of December 31, 1986. Timken * * *.

Capital expenditures.--Timken accounted for a major proportion of total capital expenditures during the period under investigation. These outlays for overall establishment operations were \$*** in 1983, \$*** in 1984, \$*** in

1/ Testimony of J.F. Toot - May 12, 1987.

2/ Testimony of J.F. Toot - May 12, 1987.

Table 15.--Income-and-loss experience of 10 U.S. producers on their operations producing tapered roller bearings, by selected producers, accounting years 1983-86

Item and firm	1983	1984	1985	1986
Net sales:	*	*	*	*
Operating income or (loss):	*	*	*	*

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

Table 16.--Tapered roller bearings: U.S. producers' end-of-period valuation of fixed assets, accounting years 1983-86

(In thousands of dollars)

Item	1983	1984	1985	1986
Overall establishment:				
Original cost:				
Timken.....	***	***	***	1/ ***
Other producers.....	***	***	***	***
Total.....	709,436	790,094	794,752	747,607
Book value:				
Timken.....	***	***	***	1/ ***
Other producers.....	***	***	***	***
Total.....	333,939	341,955	319,130	366,203
Number of firms providing data.....	6	8	8	8
Tapered roller bearing operations:				
Original cost:				
Timken.....	***	***	***	1/ ***
Other producers.....	***	***	***	***
Total.....	679,987	728,163	732,584	679,411
Book value:				
Timken.....	***	***	***	1/ ***
Other producers.....	***	***	***	***
Total.....	316,772	313,411	292,636	330,955
Number of firms providing data.....	6	8	8	8

1/ During the last quarter of 1985 and into 1986 Timken * * *. In addition certain economically impaired assets were written down to their net realizable values.

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

1985, and \$*** in 1986 (table 17). Capital expenditures for tapered roller bearing operations were \$*** in 1983, \$*** in 1984, \$*** in 1985, and \$*** in 1986. Although Timken's bearing division experienced * * *, it is a direct beneficiary of the new alloy steel plant constructed by the company. This plant, completed in 1985 at a cost of approximately \$450 million, supplies the bearing division with steel tubing and bars.

Table 17.--Tapered roller bearings: Capital expenditures, accounting years 1983-86

(In thousands of dollars)

Item	1983	1984	1985	1986
Overall establishment:				
Timken.....	***	***	***	***
Other producers.....	***	***	***	***
Total.....	***	***	***	***
Number of firms providing data.....	6	8	8	8
Tapered roller bearing operations:				
Timken.....	***	***	***	***
Other producers.....	***	***	***	***
Total.....	***	***	***	***
Number of firms providing data.....	6	8	8	8

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

Research and development.--Timken also accounted for most of the research and development expenses reported by U.S. producers. Their expenditures were used to * * *. Total industry outlays were \$*** in 1983, \$*** in 1984, \$*** in 1985, and \$*** in 1986. The large increase in Timken's research and development expenses in 1986 is a result of certain expenses being classified differently than in previous years. These classification changes resulted from the reorganization of * * *. Restated amounts for prior years cannot be determined. Reported research and development expenditures are shown in the following tabulation (in thousands of dollars):

Producer	1983	1984	1985	1986
Timken.....	***	***	***	***
Other producers.....	***	***	***	***
Total.....	***	***	***	***
Number of firms providing data.....	5	7	7	7

Capital and investment.--The companies were asked to describe and explain the potential negative effects, if any, of imports of tapered roller bearings and parts from Hungary, Italy, Japan, China, Romania, and/or Yugoslavia on their firm's growth, investment, and ability to raise capital. Excerpts from their responses are presented below:

* * * * *

Summary of U.S. Producers' Performance

As indicated earlier, the U.S. producers' performance during 1983-86 generally reflected the pattern in U.S. consumption of tapered roller bearings--strong improvement on all indicators from 1983 to 1984, followed by declines from 1984 to 1986. The overall operating levels in 1986 were lower than those in 1983 for capacity, production, shipments (quantity and value), and employment. Capacity utilization rates were lower for the production of tapered roller bearing cups, but slightly higher for cone assemblies. Inventory to shipment ratios are high since * * *.

With regard to the industry's financial performance, it experienced operating losses in 1983, 1985, and 1986; however, some improvement is shown since losses as a ratio to net sales were 7.3 percent in 1983, 4.5 percent in 1985, and 0.7 percent in 1986. This improvement may be attributed to higher net sales in 1985 and 1986 when compared with 1983, as well as to concerted efforts by the producers to cut costs, consolidate operations, and remove inefficient and obsolete equipment. Capital expenditures decreased substantially while R&D increased substantially, trends largely reflecting Timken's activity.

Timken's strong influence on the industry's profit-and-loss experience, coupled with the several nonrecurring expense items and accounting changes made by Timken, require that the total industry experience, as well as Timken's individual operations, be evaluated carefully with these factors in mind. A detailing of the factors and their impact on the profit-and-loss performance of the industry was discussed in the previous sections of this report.

The especially poor performances of two U.S. producers--* * * and * * *--have a distorting effect on the overall industry trends, which generally "flatten out" or improve with the exclusion of these two firms. Although the other U.S. producers have undoubtedly gained from the decline of these two firms (i.e., * * *), the U.S. producers have experienced an overall decline in market share of U.S. tapered roller bearing consumption. Tables 18 and 19 present summary performance indicators for the U.S. industry, Timken individually, and the industry excluding * * * and * * *.

Consideration of Alleged Threat of Material Injury

In its examination of the question of threat of material injury to an industry in the United States, the Commission may take into consideration such factors as the rate of increase of the subject imports, the rate of increase in U.S. market penetration by such imports, the rate of increase of imports held in inventory in the United States, the capacity of producers in the exporting country to generate exports (including the existence of underutilized capacity and the availability of export markets other than the United States), and the price depressing or suppressing effect of the subject imports on domestic prices.

Table 18.--Tapered roller bearings: U.S. producers' capacity, production, and capacity utilization by selected producers, 1983-86 ^{1/}

Item	1983	1984	1985	1986	Change from 1983-86 Percent
Capacity (1,000 units): ^{2/}					
Cone assemblies:					
Total industry.....	180,629	177,249	179,471	172,275	-4.6
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
Cups:					
Total industry.....	185,033	180,257	185,733	179,942	-2.8
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
Production (1,000 units):					
Sets:					
Total industry.....	13,440	14,583	13,285	12,246	-8.9
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
Cone assemblies:					
Total industry.....	92,481	118,866	102,475	89,929	-2.8
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
Cups:					
Total industry.....	101,039	117,383	107,793	90,640	-10.3
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
Capacity utilization (percent):					
Cone assemblies:					
Total industry.....	51.2	67.1	57.1	52.2	2.0
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
Cups:					
Total industry.....	54.6	65.1	58.0	50.4	-7.7
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***

^{1/} Capacity and production data * * *.

^{2/} The capacity to produce tapered roller bearing sets was not reported in a comparable manner by U.S. producers.

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

Table 19.--Tapered roller bearings: U.S. producers shipments, market shares, employment, and operating losses by selected producers, 1983-86

Item	1983	1984	1985	1986	Change from 1983-1986 Percent
Quantity of shipments (1,000 units):					
Total industry.....	190,391	210,172	183,085	164,249	-13.7
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
As a share of consumption (percent):					
Total industry.....	71.7	64.2	65.6	62.3	-13.1
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
Value of shipments (1,000 dollars):					
Total industry.....	612,610	738,984	648,396	567,407	-7.4
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
As a share of consumption (percent):					
Total industry.....	87.0	82.5	81.8	80.4	-7.6
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
Employment (1,000 workers):					
Total industry.....	7,506	9,149	7,694	6,792	-9.5
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***
Operating income (loss) as as ratio to net sales (percent):					
Total industry.....	(7.3)	3.0	(4.5)	(0.7)	90.4
Timken.....	***	***	***	***	***
Industry less * * *.....	***	***	***	***	***

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

Discussions of the rates of increase in imports from the subject countries of tapered roller bearings, parts thereof, and certain housings containing tapered roller bearings and their U.S. market penetration are presented in the section of the report entitled "Consideration of the Causal Relationship Between the Alleged LTFV Imports and the Alleged Material Injury." Available information on prices of the imported products is also presented in the section of the report on causation. Information on inventories of the subject imports in the United States and the ability of the foreign producers to generate exports is presented in the following sections.

U.S. importers' inventories

Some importers had difficulty providing data on their inventories of tapered roller bearings from the subject countries, primarily because their inventories are not distinguished by country of origin. Since most importers are either distributors or bearing producers, their inventories involve products from multiple sources.

The quantity of inventories of tapered roller bearing imports from Hungary remained stable from 1983 to 1986, but these inventories as a ratio to imports fell by *** percent during the same period. Inventories of tapered roller bearing imports from China declined by 19.2 percent, whereas inventories as a ratio to imports dropped by 54.6 percent. Inventories of imports from Romania fell by 20.5 percent from 1983 to 1986, but inventories as a ratio to imports increased by 46.6 percent during the same period (table 20).

Table 20.--Tapered roller bearings: U.S. importers' inventories, 1983-86

Item	1983	1984	1985	1986
Inventories from Hungary: 1/				
Quantity: 1,000 units....	***	***	***	***
As a ratio to imports				
percent..	***	***	***	***
Inventories from China: 2/				
Quantity: 1,000 units....	***	***	***	***
As a ratio to imports				
percent..	***	***	***	***
Inventories from Romania: 3/				
Quantity: 1,000 units....	***	***	***	***
As a ratio to imports				
percent..	***	***	***	***

1/ As reported by importers accounting for *** percent (by value) of 1986 U.S. imports of tapered roller bearings from Hungary.

2/ As reported by importers accounting for 94.4 percent (by value) of 1986 U.S. imports of tapered roller bearings from Romania.

3/ As reported by importers accounting for 31.7 percent (by value) of 1986 U.S. imports of tapered roller bearings from the PRC.

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

Ability of foreign producers to generate exports

Commission staff requested counsel for the Hungarian, Romanian, and Chinese tapered roller bearing producers to supply information on these producers' capacity, production, shipments to the United States, home-market shipments, shipments to all other countries, and end-of-year inventories for the years 1983-86. Counsel for the Hungarian producer MGM provided these data, which are presented in table 21. As seen from table 21, Hungarian shipments to the United States of tapered roller bearings accounted for *** percent of all Hungarian tapered roller bearing shipments for the years 1983-86. Production increased about *** percent, but shipments to the United States declined just over *** percent.

According to counsel representing the Chinese producers of tapered roller bearings, official statistics on Chinese capacity, production, exports, home-market shipments, and inventories of tapered roller bearings are unavailable as the Chinese Government does not record such statistics.

Counsel for the Romanian producer did not provide data in time to be included in the final staff report to the Commission. However, this information was submitted to the Commission through the Secretary's Office on May 21, 1987.

Table 21.--Tapered roller bearings: Foreign producer data, 1983-86

Item	1983	1984	1985	1986
Hungarian producer, MGM:				
Capacity.....1,000 units..	1/	1/	1/	1/
Production..... do....	***	***	***	***
Home market shipments				
1,000 units..	***	***	***	***
Shipments to U.S.....do....	***	***	***	***
All other shipments...do....	***	***	***	***
Inventories.....do....	2/	***	***	***

1/ Counsel did not provide this data, but stated that capacity * * *.

2/ Data not available.

Source: Data provided by counsel for foreign producers.

Consideration of the Causal Relationship Between the Alleged LTFV Imports and the Alleged Material Injury

U.S. imports

During 1986, Japanese exports of tapered roller bearings to the United States accounted for the largest share of total U.S. imports of these products. At 80.8 percent (by quantity) in 1983, Japanese imports rose as a share of total tapered roller bearing imports in 1984, but declined to 77.8 percent in 1986. All countries other than Japan accounted for 22.2 percent of total U.S. imports of tapered roller bearings during 1986 (tables 22 and 23).

Table 22.--Tapered roller bearings and parts thereof: Total U.S. imports, by quantity, 1983-86

(In thousands of units)				
Item	1983	1984	1985	1986
TRB sets (1,000 units):				
Hungary.....	-	40	58	644
Italy.....	42	146	983	1,139
Japan.....	2,193	6,956	7,369	5,643
China.....	317	1,546	457	291
Romania.....	209	31	379	145
Yugoslavia.....	72	187	-	-
Subtotal.....	2,834	8,905	9,246	7,862
All other countries.....	937	2,713	1,845	4,647
Total.....	3,771	11,618	11,091	12,510
TRB cone assemblies (1,000 units):				
Hungary.....	1,093	1,246	1,310	1,556
Italy.....	4	132	-	1
Japan.....	31,410	44,325	33,254	33,803
China.....	392	-	-	-
Romania.....	3,623	2,254	3,966	2,624
Yugoslavia.....	360	1,608	1,121	833
Subtotal.....	36,882	49,564	39,651	38,817
All other countries.....	584	2,489	2,416	1,547
Total.....	37,466	52,053	42,067	40,364
TRB cups (1,000 units):				
Hungary.....	1,123	1,369	1,298	1,554
Italy.....	2	130	-	-
Japan.....	27,088	44,060	31,015	37,855
China.....	327	-	22	-
Romania.....	3,516	2,414	4,490	2,787
Yugoslavia.....	489	1,682	1,110	822
Subtotal.....	32,545	49,655	37,935	43,018
All other countries.....	1,298	4,049	4,739	3,458
Total.....	33,842	53,704	42,674	46,476
Total (1,000 units):				
Hungary.....	2,217	2,655	2,667	3,754
Italy.....	48	408	983	1,140
Japan.....	60,691	95,340	71,638	77,302
China.....	1,036	1,546	479	291
Romania.....	7,349	4,698	8,835	5,555
Yugoslavia.....	921	3,477	2,231	1,655
Subtotal.....	72,261	108,124	86,832	89,698
All other countries.....	2,818	9,251	9,000	9,653
Total.....	75,079	117,375	95,832	99,351
TRB parts (1,000 pounds):				
Hungary.....	1/	1/	-	-
Italy.....	1	35	63	87
Japan.....	188	330	578	507
China.....	24	219	149	196
Romania.....	-	1	54	153
Yugoslavia.....	-	-	-	7
Subtotal.....	212	584	844	949
All other countries.....	131	375	953	1,277
Total.....	343	960	1,796	2,227

1/Less than 500 pounds.

NOTE: Because of rounding, figures may not add to totals shown.

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

Table 23.--Tapered roller bearings and parts thereof: Total U.S. imports, by value, 1983-86

(C.i.f. value, plus calculated duties paid, in thousands of dollars)				
Item	1983	1984	1985	1986
TRB sets:				
Hungary.....	-	188	251	602
Italy.....	332	549	898	1,922
Japan.....	10,094	22,713	21,777	16,092
China.....	417	1,242	605	413
Romania.....	249	36	395	198
Yugoslavia.....	92	260	-	-
All other countries.....	7,686	11,573	8,712	14,504
Total.....	18,869	36,562	32,639	33,731
TRB cone assemblies:				
Hungary.....	1,259	1,119	1,249	1,360
Italy.....	15	70	-	3
Japan.....	39,771	67,370	59,075	54,479
China.....	360	-	-	-
Romania.....	3,191	1,864	4,848	2,240
Yugoslavia.....	417	1,516	961	665
All other countries.....	2,284	4,641	5,824	4,687
Total.....	47,298	76,581	71,958	63,434
TRB cups:				
Hungary.....	543	548	424	946
Italy.....	14	125	-	-
Japan.....	19,303	35,119	30,059	32,442
China.....	119	-	7	-
Romania.....	1,262	1,242	2,137	1,100
Yugoslavia.....	272	643	380	267
All other countries.....	3,676	5,650	6,915	5,934
Total.....	25,187	43,327	39,921	40,689
Subtotal:				
Hungary.....	1,801	1,856	1,925	2,909
Italy.....	360	744	898	1,924
Japan.....	69,168	125,203	110,911	103,013
China.....	896	1,242	611	413
Romania.....	4,702	3,142	7,380	3,537
Yugoslavia.....	781	2,419	1,341	932
All other countries.....	13,646	21,865	21,452	25,125
Total.....	91,355	156,470	144,517	137,853
TRB parts:				
Hungary.....	2	1	-	-
Italy.....	11	202	218	220
Japan.....	555	1,141	1,942	1,646
China.....	93	509	343	417
Romania.....	-	12	218	203
Yugoslavia.....	-	-	-	15
All other countries.....	548	1,246	1,798	2,185
Total.....	1,209	3,111	4,519	4,687
Total TRB imports:				
Hungary.....	1,803	1,856	1,925	2,909
Italy.....	371	946	1,116	2,144
Japan.....	69,724	126,344	112,853	104,659
China.....	989	1,751	955	830
Romania.....	4,702	3,153	7,598	3,741
Yugoslavia.....	781	2,419	1,341	947
All other countries.....	14,194	23,111	23,250	27,310
Total.....	92,563	159,581	149,036	142,541

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

Not all countries under review exported to the United States all of the tapered roller bearing products subject to investigation. There were no imports of mounted tapered roller bearings reported by any of the importers of tapered roller bearings. 1/ Tapered rollers were imported in nominal quantities from Japan only, and imports of unfinished and finished components were imported only from Japan, China, and Romania. These imports of rollers and other parts were imported only by U.S. producers. There were imports of cartridge bearing units only from Japan.

Hungary.--Tapered roller bearing sets, cups, and cone assemblies were imported into the United States from Hungary. There were no imports of tapered rollers, bearing cartridge units or mounted bearings, or tapered roller bearing parts during 1983-86. From 1983 to 1986, U.S. imports of tapered roller bearing sets, cups, and cone assemblies from Hungary rose from 2.2 million units in 1983 to 3.8 million units in 1986, an increase of 69.3 percent. During the same period, these imports rose in value by 61.5 percent.

Italy.--Since 1984, the trend in imports of tapered roller bearings from Italy has been away from cup and cone assemblies toward complete sets. In fact, there were no imports of cups and practically none of cone assemblies during 1985 and 1986. In addition, there were no imports of mounted bearings or bearing cartridge units from Italy, and although the Department of Commerce reported imports of antifriction rollers and tapered roller bearing parts from Italy during 1983-86, none of the importers of Italian tapered roller bearings imported tapered rollers or components for bearings.

The number of sets, cone assemblies, and cups imported from Italy rose from 48,000 units in 1983 to 1.1 million units in 1986, a 23-fold increase. These imports rose in value from \$360,000 in 1983 to \$1.9 million in 1986. Imports of Italian parts rose 86-fold, from 1,000 pounds in 1983 to 87,000 pounds in 1986.

China.--Since 1984, U.S. imports of Chinese tapered roller bearings have also primarily been complete sets. In 1984, 1985, and 1986, there were no imports of cone assemblies from China, and either no or relatively few imports of cups. There were no imports of mounted tapered roller bearings, cartridge bearing units, or tapered rollers from China.

The net change in imports of tapered roller bearings from China has been one of decline; from 1983 to 1986 the number of units imported dropped by 71.9 percent, from 1.0 million units in 1983 to 291,000 units in 1986. The value of these imports declined by 54.0 percent during the same period. Chinese imports of bearing parts increased substantially from 1983 to 1986, from 24,000 pounds to 196,000 pounds, a 7-fold increase. * * * importer of parts from China, which are unfinished cups and cones.

Romania.--There were no imports of Romanian mounted tapered roller bearings, tapered rollers, or bearing cartridge units during 1983-86. Imports from Romania of tapered roller bearing units fluctuated between 1983 and 1986,

1/ The firms identified by the Customs Net Import File as importers of mounted bearing units and parts of mounted bearing units reported that these were ball bearing, and not tapered roller bearing, assemblies.

decreasing overall in quantity by 24.4 percent, from 7.3 million units in 1983 to 5.6 units in 1986. The value of these imports declined from \$4.7 million in 1983 to \$3.5 million in 1986. However, U.S. imports of Romanian tapered roller bearing parts increased from almost none in 1983 and 1984 to 153,000 pounds in 1986, valued at \$203,000. * * * importer of parts from Romania, which are unfinished cups and cones.

Japan.--Tables 22 and 23 report total U.S. imports from Japan of tapered roller bearings; however, not all of these imports are subject to investigation. Imports from Japan that are subject to investigation include: imports of 0-4 inch outside diameter tapered roller bearings from the Japanese producer NTN Toyo Co. Ltd; imports of all tapered roller bearing sets, cone assemblies, and cups greater than 4 inches in outside diameter; imports of tapered rollers and all other bearing parts; and unfinished tapered roller bearing components. 1/

The Commission has received questionnaire responses from all known major importers of all tapered roller bearings from Japan. * * *. 2/ * * *. Based on these questionnaire responses, data on LTFV imports subject to investigation are presented in table 24.

As can be seen from table 24, the total quantity of tapered roller bearing sets, cone assemblies, and cups subject to investigation declined *** percent from 1983 to 1986, from *** to *** units. The value of these imports increased *** percent from 1983 to 1986, from \$*** to \$***. The total value of all Japanese LTFV imports, including parts, rose *** percent from 1983 to 1986, from \$*** to \$***.

With regard to size, imports of tapered roller bearings 0-4 inches in outside diameter from NTN Toyo have been * * *. From 1983 to 1986, the quantity of these imports declined *** percent and their value decreased *** percent. Imports of tapered roller bearings greater than 4 inches in outside diameter have been * * *. From 1983 to 1986, these imports increased *** percent in volume (from *** to *** units) and *** percent in value (from \$*** to \$***).

Yugoslavia.--U.S. imports from Yugoslavia of tapered roller bearings were exclusively cup and cone assemblies during 1985 and 1986. There were no imports of sets in 1985 or 1986, and there have not been any imports of tapered rollers, parts, mounted bearings, or cartridge bearing units. The quantity of U.S. imports of Yugoslavian tapered roller bearings rose by 79.7 percent, from 921,000 units in 1983 to 1.7 million units in 1986. The value of these units rose by 19.3 percent during the same period.

Market penetration

From 1983 to 1986, the import penetration ratios (by quantity) for sets, cone assemblies, and cups increased for imports from all countries subject to investigation except for China and Romania (table 25). The U.S. market share

1/ See Commerce's notice of institution in app. C.

2/ * * *. The *** firms identified above are also the only importers of bearings greater than 4 inches in outside diameter and of finished and unfinished parts and components.

Table 24.--Tapered roller bearings and parts thereof: U.S. imports from Japan subject to investigation, 1983-86 ^{1/}

Item	1983	1984	1985	1986
	<u>Quantity (1,000 units)</u>			
0-4 inches in O.D. from NTN:				
Sets.....	***	***	***	***
Cone assemblies.....	***	***	***	***
Cups.....	***	***	***	***
Total.....	***	***	***	***
Over 4 inches O.D.:				
Sets.....	***	***	***	***
Cone assemblies.....	***	***	***	***
Cups.....	***	***	***	***
Total.....	***	***	***	***
Parts:				
Unfinished cups and cones 1,000 units.....	***	***	***	***
Unfinished and finished rollers 1,000 pounds....	***	***	***	***
Other parts.....	2/	2/	2/	2/
	<u>C.i.f., duty-paid value (1,000 dollars)</u>			
0-4 inches in O.D. from NTN:				
Sets.....	***	***	***	***
Cone assemblies.....	***	***	***	***
Cups.....	***	***	***	***
Total.....	***	***	***	***
Over 4 inches O.D.:				
Sets.....	***	***	***	***
Cone assemblies.....	***	***	***	***
Cups.....	***	***	***	***
Total.....	***	***	***	***
Parts:				
Unfinished cups and cones...	***	***	***	***
Unfinished and finished rollers.....	***	***	***	***
Other parts.....	***	***	***	***
Total.....	***	***	***	***

^{1/} As reported by importers accounting for *** percent of total 1986 U.S. imports of tapered roller bearings from Japan.

^{2/} This item cannot be measured in a meaningful unit of quantity.

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

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

Table 25.—Tapered roller bearings: Apparent U.S. consumption and market shares of imports, 1983-86 1/

Item	Apparent consumption				Market share			
	1983	1984	1985	1986	1983	1984	1985	1986
	Percent							
TRB sets (1,000 units):								
U.S. producers.....	9,720	10,246	8,474	6,913	72.0	46.9	43.3	35.6
Hungary.....	-	40	58	644	-	0.2	0.3	3.3
Italy.....	42	146	983	1,139	0.3	0.7	5.0	5.9
Japan.....	2,193	6,956	7,369	5,643	16.3	31.8	37.7	29.1
China.....	317	1,546	457	291	2.3	7.1	2.3	1.5
Romania.....	209	31	379	145	1.5	0.1	1.9	0.7
Yugoslavia.....	72	187	-	-	0.5	0.9	-	-
All other countries.....	937	2,713	1,845	4,647	7.0	12.4	9.4	23.9
Total.....	13,491	21,864	19,565	19,422	100.0	100.0	100.0	100.0
TRB cone assemblies (1,000 units):								
U.S. producers.....	88,197	99,001	85,178	77,990	70.2	65.5	66.9	65.9
Hungary.....	1,093	1,246	1,310	1,556	0.9	0.8	1.0	1.3
Italy.....	4	132	-	1	2/	0.1	-	2/
Japan.....	31,410	44,325	33,254	33,803	25.0	29.3	26.1	28.6
China.....	392	-	-	-	0.3	-	-	-
Romania.....	3,623	2,254	3,966	2,624	2.9	1.5	3.1	2.2
Yugoslavia.....	360	1,608	1,121	833	0.3	1.1	0.9	0.7
All other countries.....	584	2,489	2,416	1,547	0.5	1.6	1.9	1.3
Total.....	125,663	151,054	127,245	118,354	100.0	100.0	100.0	100.0
TRB cups (1,000 units):								
U.S. producers.....	92,474	100,925	89,433	79,346	73.2	65.3	67.7	63.1
Hungary.....	1,123	1,369	1,298	1,554	0.9	0.9	1.0	1.2
Italy.....	1,522	130	-	-	2/	0.1	-	-
Japan.....	27,088	44,060	31,015	37,855	21.4	28.5	23.5	30.1
China.....	327	-	22	-	0.3	-	2/	-
Romania.....	3,516	2,414	4,490	2,787	2.8	1.6	3.4	2.2
Yugoslavia.....	489	1,682	1,110	822	0.4	1.1	0.8	0.7
All other countries.....	1,298	4,049	4,739	3,458	1.0	2.6	3.6	2.7
Total.....	126,316	154,629	132,107	125,822	100.0	100.0	100.0	100.0
Total (1,000 units):								
U.S. producers.....	190,391	210,172	183,085	164,249	71.7	64.2	65.6	62.3
Hungary.....	2,217	2,655	2,667	3,754	0.8	0.8	1.0	1.4
Italy.....	48	408	983	1,140	2/	0.1	0.4	0.4
Japan.....	60,691	95,340	71,638	77,302	23.0	29.1	25.7	29.3
China.....	1,036	1,546	479	291	0.4	0.5	0.2	0.1
Romania.....	7,349	4,698	8,835	5,555	2.8	1.4	3.1	2.1
Yugoslavia.....	921	3,477	2,231	1,655	0.3	1.1	0.8	0.6
All other countries.....	2,818	9,251	9,000	9,653	1.1	2.8	3.2	3.7
Total.....	265,470	327,547	278,917	263,599	100.0	100.0	100.0	100.0
Total (\$1,000):								
U.S. producers.....	612,610	738,984	648,396	567,407	87.0	82.5	81.8	80.5
Hungary.....	1,801	1,856	1,925	2,909	0.3	0.2	0.2	0.4
Italy.....	360	744	898	1,924	0.1	0.1	0.1	0.3
Japan.....	69,168	125,203	110,911	103,013	9.8	14.0	14.0	14.6
China.....	896	1,242	611	413	0.1	0.1	0.1	0.1
Romania.....	4,702	3,142	7,380	3,537	0.7	0.4	0.9	0.5
Yugoslavia.....	781	2,419	1,341	932	0.1	0.3	0.2	0.1
All other countries.....	13,646	21,865	21,452	25,125	1.9	2.4	2.7	3.6
Total.....	703,965	895,455	792,913	705,260	100.0	100.0	100.0	100.0

1/ Finished tapered roller bearings only.

2/ Less than 0.05 percent.

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

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

of Chinese imports of tapered roller bearings declined from 0.4 percent in 1983 to 0.1 percent in 1986, and the market share of Romanian imports declined from 2.8 to 2.1 percent. Imports from Hungary, Italy, Japan, and Yugoslavia all increased their market penetration, by 0.6 percentage points, 0.4 percentage points, 6.3 percentage points, and 0.3 percentage points, respectively. Imports from all other countries increased their share of the U.S. market from 1.1 to 3.7 percent, and the U.S. producers' share declined from 71.7 percent to 62.3 percent during 1983-86.

In terms of the total value of U.S. consumption of complete tapered roller bearings, the U.S. producers' market share declined from 87.0 percent to 80.5 percent from 1983 to 1986. The largest increase in the share of total value of the U.S. market was exhibited by imports of all Japanese tapered roller bearings, which increased from 9.8 percent to 14.6 percent. (Data on the market shares of only the LTFV imports from Japan are presented in table 26.) Increases in imports from the other five countries subject to investigation accounted for a 0.1 percent gain in market share for these countries.

Cumulative effects of imports under investigation

The Trade and Tariff Act of 1984, at section 612(a)(2)(A), amends title VII of the Tariff Act of 1930 by adding a new subsection that establishes--

Cumulation--for the purposes of clauses (i) and (ii), the Commission shall cumulatively assess the volume and effect of imports from two or more countries of like products subject to investigation if such imports compete with each other and with like products of the domestic industry in the United States Market.

The Conference Report accompanying the Act notes that--

The provision requires cumulation of imports from various countries that each account individually for a small percentage of total market penetration but when combined may cause material injury. The conferees do intend, however, that the marketing of imports of accumulated [sic] be reasonably coincident. Of course, imports of like products from countries not subject to investigation would not be included in the cumulation. 1/

Imports and market shares of LTFV merchandise--The cumulative effects of the LTFV imports subject to investigation are presented in table 26 with regard to import levels and market penetration. From 1983 to 1986, the U.S. producers' share of the tapered roller bearing market declined 9.4 points by quantity and 6.5 points by value (table 25). During the same period, the share of the market accounted for by Hungary, China, Romania, and Yugoslavia collectively declined 0.1 percentage point by quantity (from 4.4 percent to 4.3 percent) and stayed exactly the same (1.1 percent) for the share of the market by value. Imports of LTFV tapered roller bearings from Italy increased their market share by quantity from less than 0.05 percent in 1983 to 0.4 percent in 1986, and increased their market share by value from 0.1 percent to

1/ H.R. Report No. 98-1156, 98th Cong., 2d sess., reprinted in 131 Congressional Record 11531, 11578, Oct. 5, 1984.

Table 26.--Tapered roller bearings: Imports and market shares of LTFV imports only, 1983-86

Item	1983	1984	1985	1986
Apparent U.S. consumption 1,000 units..	265,470	327,547	278,917	263,599
Quantity of LTFV imports 1,000 units:				
Hungary.....	2,217	2,655	2,667	3,754
Italy.....	48	408	983	1,140
China <u>1/</u>	1,037	1,605	858	1,329
Romania.....	7,349	4,698	8,835	5,555
Yugoslavia.....	921	3,477	2,231	1,655
Subtotal.....	11,572	12,843	16,053	13,433
Japan <u>2/</u>	***	***	***	***
Japan <u>3/</u>	***	***	***	***
Total <u>2/</u>	***	***	***	***
Total <u>3/</u>	***	***	***	***
Market share of imports (percent):				
Hungary.....	.8	.8	1.0	1.4
Italy.....	<u>4/</u>	.1	.4	.4
China <u>1/</u>4	.5	.3	.5
Romania.....	2.8	1.4	3.2	2.1
Yugoslavia.....	.3	1.1	.8	.6
Subtotal.....	4.4	3.9	5.8	5.1
Japan <u>2/</u>	***	***	***	***
Japan <u>3/</u>	***	***	***	***
Total <u>2/</u>	***	***	***	***
Total <u>3/</u>	***	***	***	***
Apparent U.S. consumption 1,000 dollars..	703,965	895,455	792,913	705,260
Value of imports (1,000 dollars):				
Hungary.....	1,801	1,856	1,924	2,908
Italy.....	360	744	898	1,923
China <u>1/</u>	905	1,403	1,093	1,557
Romania.....	4,702	3,142	7,381	3,537
Yugoslavia.....	781	2,419	1,342	932
Subtotal.....	8,552	9,564	12,638	10,857
Japan <u>2/</u>	***	***	***	***
Japan <u>3/</u>	***	***	***	***
Total <u>2/</u>	***	***	***	***
Total <u>3/</u>	***	***	***	***
Market share of imports: (percent):				
Hungary.....	.3	.2	.2	.4
Italy.....	.1	.1	.1	.3
China <u>1/</u>1	.1	.1	.2
Romania.....	.7	.4	.9	.5
Yugoslavia.....	.1	.3	.2	.1
Subtotal.....	1.2	1.1	1.6	1.5
Japan <u>2/</u>	***	***	***	***
Japan <u>3/</u>	***	***	***	***
Total <u>2/</u>	***	***	***	***
Total <u>3/</u>	***	***	***	***
Imports of finished and unfinished parts from Japan, Romania, and China: <u>5/</u>				
Value.....1,000 dollars..	***	***	***	***
As a ratio to U.S. consumption.....percent..	***	***	***	***

1/ Imports from China also include imports from Hong Kong because of Commerce's finding of LTFV sales of Chinese bearings by a Hong Kong company.

2/ Includes tapered roller bearings 0-4 inches in outside diameter from NTN Toyo. Data from Commission questionnaires.

3/ Excludes tapered roller bearings 0-4 inches in outside diameter from NTN Toyo. Data from Commission questionnaires.

4/ Less than 0.05 percent.

5/ As reported in Commission questionnaires.

Source: Compiled from responses to questionnaires of the U.S. International Trade Commission and others.

0.3 percent. Imports of LTFV bearings from Japan accounted for a relatively constant share of the U.S. market in 1986 compared with 1983: the share of these imports (by quantity) was *** percent in 1983 and *** percent in 1986. The market share of the value of these imports, however, increased from *** to *** percent. The change in market share of LTFV imports from all six countries subject to investigation was an increase of 0.3 percentage points by quantity and 2.9 percentage points by value.

Quality considerations.--The argument has been made by counsel for the importers and producers of tapered roller bearings manufactured in Hungary, China, Romania, and Yugoslavia that these bearings are of a sufficiently inferior quality to the American, Japanese, and Italian bearings that they do not compete with these higher quality bearings. As evidence for noncompetition, counsel cite (1) that bearings from these countries are confined to the low end of the tapered roller bearing market, and (2) that since price differentials between the imported bearings and the U.S. products exceed the dumping margins calculated by Commerce, this is an indicator of separate, noncompetitive price systems.

The general "quality profile" for tapered roller bearings from all four of these countries is as follows: the bearings are made from carbon steel, are through hardened rather than case hardened (a few Romanian bearings are case hardened), have lower tolerances and fatigue life, and have geometries that are less precise than their American, Japanese, or Italian counterparts. In addition, these bearings may or may not have finely honed and crowned rollers, and dimensions for any given part number may vary from one shipment to the next. As a consequence of the lower quality of these bearings, the sales of these bearing are restricted to the low-end, less-demanding segments of the tapered roller bearing market. Tapered roller bearings from the Eastern European countries and China used on nondriving axles (utility trailers, mobile homes), conveyors, and in the aftermarket for replacement use are all deemed of adequate quality for the needs of these markets.

Information obtained by the Commission from importer and purchaser questionnaires and from statements by some of the U.S. producers all tend to support this product and market profile of tapered roller bearings from Hungary, China, Romania, and Yugoslavia. As indicated in tables 4 and 5 of this report, imports from these four countries are confined to the nondriving axle market, conveyor market, and aftermarket. 1/ About 75 percent of the U.S. shipments of these imports are to the nondriving axle market, and about 85 percent of consumption in that market is accounted for by imports from these four countries. 2/ U.S. importers of these bearings made extensive comments on product quality and market applications. Their comments are presented below.

* * * * *

1/ Although Timken disputed the characterization of these markets as "low end" at the Commission's hearing, Hyatt Clark specifically identified them as low end in its letter to the Commission of Sept. 29, 1986, and it is a term that was frequently used in questionnaire responses and comments to Commission staff in regard to these physically less demanding applications for tapered roller bearings.

2/ * * *

* * * * *

* * * * *

* * * * *

* * * * *

* * * * *

In spite of the statements that tapered roller bearings are inferior, Timken argues that they are of merchantable quality, are produced to AFBMA standards, and consequently compete with all other tapered roller bearings, regardless of quality or country of origin. In addition, Timken's own engineering evaluations indicate that these bearings are of comparable quality to the U.S. product. Appendix D provides these engineering summaries. * * * however, told Commission staff that * * *.

The importers/producers of the East European and Chinese bearings argue that the AFBMA standards represent only the minimally acceptable standards for tapered roller bearings sold in the United States, and that the real industry standard for quality is established by Timken. Both Timken and NTN have improved the ratings of their bearings in recent years, and Timken, in one of its product brochures, stated that "all tapered roller bearings do not react similarly under load, although they may look the same even to carrying the same industry-wide part numbers." A copy of Timken's brochure entitled "The Material Difference," which discusses the superior properties of case-carburized steel, is presented in Appendix D, as is a page from the company's 1986 annual report on bearing ratings.

Two companies, Marsuda Rogers and * * *, provided independent laboratory tests of bearings that they import. Marsuda Rogers also provided copies of letters from companies that * * * from Hungary, China, and/or Yugoslavia because of poor quality. Parts of these documents are presented in Appendix D, and the laboratory that tested * * * summed its general findings as follows: * * *.

Responses to the Commission's purchasers questionnaires also reflect quality differences between the East European and Chinese bearings and the bearings manufactured elsewhere. The Commission received questionnaires from 21 purchasers of tapered roller bearings, who purchased nearly \$63 million worth of tapered roller bearings in 1986 from all 6 countries subject to investigation and the United States. General comments on the relative quality of tapered roller bearings manufactured in the countries subject to investigation are as follows:

* * * * *

* * * * *

* * * * *

* * * * *

Several purchasers reported that the quality of the East European and Chinese bearings was good enough for their particular needs, but one company noted that some of the axles that they produced were designed for only a 2,000 mile life. * * *.

The bearing purchasers were asked to rate the imported bearings vis-a-vis the U.S. product for five factors: bearing life, surface finish, precision of grinding, bearing load ratings, and overall quality of bearing performance. With regard to the Chinese bearings, the three purchasers who responded rated the Chinese bearings as inferior on all factors. Two of the three purchasers stated that if the price of the Chinese bearings were the same as the U.S. product, they would not buy the Chinese bearing because of its inferior quality. The third company, * * *.

Three purchasers responded to the questions about Yugoslavian bearings, and rated these bearings the same as U.S. bearings. One purchaser said their firm would not buy the Yugoslavian bearings if the prices were the same as the U.S. product, the other two said they would still buy the Yugoslavian bearings. One purchaser gave no reason for this choice; the other was * * *.

Four purchasers responded to questions about Hungarian bearings--one rated them as inferior overall, two rated them the same, and one rated them as inferior on two factors but the same overall. Two purchasers responded that they would not continue to buy the imported bearings if their prices were the same as the U.S. product, and two said they would because of * * * problems with U.S. producers.

Finally, six purchasers responded to questions about Romanian tapered roller bearings. Three rated them of the same quality as U.S. bearings, one responded that the company * * *, and two rated Romanian bearings as inferior overall when compared to U.S. bearings. Five of the six purchasers said they would not buy Romanian bearings if their prices were the same as U.S. bearings, but only one cited quality considerations as a reason. * * *.

* * * * *

In sum, based on information gathered by Commission staff, tapered roller bearings from Hungary, China, Romania, and Yugoslavia are not "qualified" or certified by the major high-stress, critical-load OEM industries because of inferior quality. Consequently, the sales of these bearings are confined to markets with less demanding applications. Purchasers in these markets and importers of these bearings have provided detailed information on the quality differences between these bearings. Although some purchasers rated the quality of bearings from Hungary, Romania, and Yugoslavia "the same" as U.S.-produced bearings, other purchasers' experiences and laboratory tests indicate that these bearings are not of the same quality as U.S.-produced or Japanese and Italian bearings. 1/

1/ There are several possible explanations for purchaser responses that Hungarian, Romanian, and Yugoslavian bearings are of the same quality as U.S. bearings: (1) they are indeed of the same quality, (2) they are simply perceived as being of the same quality, or (3) the responses indicate that both the imported and domestic bearings are of sufficient quality to be reliable for the particular needs of the purchaser.

In addition, there are distinct differences in services provided by the U.S. producers and the importers of Japanese bearings and the importers/distributors of bearings from Hungary, China, Romania, and Yugoslavia. As indicated in their questionnaire responses, all the U.S. producers of tapered roller bearings except * * * and the importers of Japanese bearings routinely offer engineering and other technical assistance for bearing product design, causes of bearing failure, installation, and application design. Some of these companies also offer toll-free hotlines, field service engineering assistance, and technical seminars. Samples from Timken's brochures on its product services are provided in Appendix D.

On the other hand, the importers and distributors of the East European bearings and Chinese bearings offer no special customer services and have no engineering or design staff. * * * did say it would send bearings to an outside laboratory for testing if requested.

Critical circumstances

"Critical circumstances" were alleged by the petitioner and found by the Department of Commerce with respect to imports of tapered roller bearings from Romania. The petition was filed on August 25, 1986, and on February 6, 1987, the Department of Commerce published a preliminary determination of sales at less than fair value. The Department of Commerce determined that "critical circumstances" exist in this case because "imports have been massive since the filing of the petition, even though total volume and value have decreased since 1985" (52 F.R. 11303, Apr. 8, 1987).

For the 5-month period between the date of filing of the petition and Commerce's preliminary finding of LTFV, U.S. tapered roller bearing imports from Romania were 127 percent higher when compared with imports during the 5-month period preceding the date of filing of the petition. However, imports from September 1986 to January 1987 were only 3.7 percent higher when compared with those imports during September 1985 to January 1986 (imports from September 1985 to January 1986 were 39.7 percent higher compared with those imports during April-August 1985.) There was a net 24-percent decline in total 1986 imports from Romania compared with 1985. The following tabulation presents the volume of imports from Romania for the indicated time periods:

<u>Volume of imports</u>	<u>Apr.-Aug. 1985</u>	<u>Sept. 1985- Jan. 1986</u>	<u>Apr.-Aug. 1986</u>	<u>Sept. 1986- Jan. 1987</u>
Finished bearings 1,000 units..	2,671	3,732	1,708	3,868
Parts....1,000 pounds..	-	22	-	1,533

The * * * reported to the Commission that it received * * *. Counsel for UCF argues that these imports should not be construed as evidence of massive imports or to evade the antidumping law since they were * * *. 1/

1/ See respondent's prehearing brief, pp. 11 and 12, exhibits C and D.

However, imports of tapered roller bearing parts increased almost sixfold during September 1985 to January 1986. The volume of parts increased from 22,370 pounds to 152,843 pounds. All parts are * * *; data in its questionnaire response indicates that * * *. 1/

Prices

Tapered roller bearings are sold f.o.b. U.S. point of shipment. Tapered roller bearings are priced on a per unit basis, using established standardized part numbers. Importers and U.S. producers offer similar warranties, i.e., replacement of failed bearings up to one year from the date of purchase. Both U.S. producers and importers offer similar standard credit terms, which differ depending on whether the customer is an original equipment manufacturer or a distributor. Both importers and U.S. producers also offer special promotions to distributors--commonly prepaid freight on large orders, although inland freight costs are usually not a significant portion of the delivered price, generally less than 2 percent.

The primary differences between imports from the subject countries and the product offered by domestic producers are quality and product line. Importers of tapered roller bearings from China, Hungary, Romania, and Yugoslavia contend that their product is markedly inferior to that of the domestic producers. Therefore, these importers claim that the price in the market place is far less than that of the domestic product. These importers further claim that because of its inferior quality, their product does not compete directly with the domestic product. Most importers of these bearings also offer a far smaller range of products than the domestic producers and no technical assistance. Because purchasers prefer full-line suppliers, offering a small product line limits the demand for imports and may contribute toward lowering the price which imported tapered roller bearings command in the U.S. market. Similarly, offering no technical services may lower the total cost of the bearing.

The Commission requested U.S. producers and importers to provide quarterly price data on their largest sales of six specified products to both OEM's and distributors. The Commission also requested U.S. purchasers, both OEM's and distributors, to provide quarterly price data on their largest purchases of the six products produced in the United States or the six subject countries. Products 1, 2, 3 and 6 are under 4 inches in outside diameter and are, therefore, subject to this investigation for Japanese imports only from NTN Toyo. The six product specifications are as follows:

PRODUCT 1--LM 11949/10 sets (TS single-row, straight 0.750-inch bore cone and TS single-row cup, 1.7810 inches in outside diameter.

PRODUCT 2--LM 11949 cone assemblies (TS single-row, straight 0.750 inch bore).

PRODUCT 3--25580 cone assemblies (TS single-row, straight 1.750 inch bore).

1/ * * *. Its questionnaire response is reported in units, a more reliable indicator than official statistics, which are recorded in pounds.

PRODUCT 4--HM 212049 cone assemblies (TS single-row, straight 2.625 inch bore).

PRODUCT 5--HM 212010 cups (TS single-row cup, 4.8125 inches in outside diameter).

PRODUCT 6--LM 67010 cups (TS single-row cup, 2.328 inches in outside diameter).

Five U.S. producers accounting for *** percent of U.S. shipments in 1986 provided price data. Two importers accounting for *** percent of tapered roller bearing imports from Japan in 1986 reported import price data. The three importers providing price data on imports from Romania accounted for *** percent of imports from Romania in 1986. One importer accounting for *** percent of 1986 imports of tapered roller bearings from Hungary and *** percent of 1986 imports from Yugoslavia reported price data on imports from these two countries. Two importers accounting for *** percent of imports from China provided price data. SKF, the sole importer providing price data on imports from Italy, accounted for all imports from Italy in 1986.

Fourteen purchasers of tapered roller bearings provided price data on their purchases of U.S.-produced, Hungarian, Italian, Japanese, Chinese, or Romanian bearings. In 1986, the 14 purchasers' combined purchases of tapered roller bearings accounted for *** percent of U.S. producers' shipments, *** percent of shipments of imported Hungarian tapered roller bearings, *** percent of shipments of imported Italian tapered roller bearings, *** percent of shipments of imported Japanese tapered roller bearings, and *** percent of shipments of imported Romanian tapered roller bearings. Purchasers provided some price data for Chinese tapered roller bearings, but could not estimate total purchases. No price data for Yugoslavian tapered roller bearings were reported by purchasers.

Price trends--Quarterly prices reported by U.S. producers and importers generally decreased over the period January 1984 to December 1986 (tables 27 through 32). Producer prices decreased for 8 of the 12 available price series. Price declines for these eight series ranged from 6 percent to 27 percent. Producer prices for three of the remaining four series increased by 5 percent, 6 percent, and 7 percent; the fourth series ended the period at the same price at which it started. Price increases were not confined to any general product category or type of sale.

Import prices also generally decreased over the period January 1984 to December 1986. Five of the six relatively complete Hungarian import price series decreased by between 7 percent and 26 percent, whereas the remaining complete series ended the period at the same price at which it started. Six of the eight relatively complete series of prices reported by importers of Japanese tapered roller bearings fell by between 7 percent and 40 percent. The remaining two complete import price series for Japanese tapered roller bearings increased by 2 percent and 50 percent. The single complete price series for tapered roller bearings from China decreased by 15 percent. Six of the seven complete series of prices for Romanian tapered roller bearings decreased by between 2 percent and 36 percent, whereas the remaining complete series increased by 11 percent.

Prices reported by domestic purchasers of tapered roller bearings similarly decreased for U.S.-produced and Romanian tapered roller bearings (tables 33 through 38). Imported Japanese bearings showed some increase in price. The 10 relatively complete purchaser price series for U.S.-produced tapered roller bearings decreased by 3 percent to 49 percent over the period January 1984 to December 1986. Of the seven relatively complete price series for Japanese bearings, one increased by 2 percent and one increased by 5 percent, one remained unchanged over most of the period, and four decreased by 9 to 28 percent. The single complete purchaser price series for Italian tapered roller bearings was unchanged from January 1984 to December 1986. The one complete price series available for Romanian tapered roller bearings decreased by 11 percent. The purchaser price data for China and Hungary were too incomplete to analyze.

The general decline in prices between 1984 and 1986 is partly due to the decrease in demand for tapered roller bearings in the U.S. industrial and automotive sectors. Decreased U.S. production of industrial products such as farm machinery and oil and gas drilling equipment between 1984 and 1986 resulted in direct decreases in demand for tapered roller bearings and reduced market prices. In the automotive sector, lighter passenger cars have allowed automobile producers to substitute some ball bearings for tapered roller bearings, resulting in a decrease in demand for tapered roller bearings and further downward pressure on prices.

Relative prices--Prices reported by importers of the subject tapered roller bearings were almost all lower than prices reported by U.S. producers for the U.S. product (tables 39 through 50). Eighty-three of the eighty-four price comparisons of imported Hungarian tapered roller bearings and the U.S. product show the imported product being sold at lower prices in the United States than the domestic product. The prices of Hungarian tapered roller bearings were between 59 percent and 2 percent lower than the reported U.S. product price, with one comparison showing the Hungarian bearings selling at a price 3 percent higher than the U.S. product. Fifteen of the 16 price comparisons for imported Italian tapered roller bearings showed the imported product selling from 57 percent to 2 percent less than the U.S. product. The remaining comparison for Italian bearings showed the import price to be 24 percent higher than the U.S. product price.

Price comparisons between imported Japanese tapered roller bearings and U.S. bearings are available in 112 instances. Of these, 98 show the Japanese bearings selling at prices 48 percent to 5 percent lower than the U.S. product, 13 show the Japanese bearings selling at prices 45 percent to 6 percent higher than the U.S. product, and the remaining comparison shows them selling at the same price. The 17 price comparisons between Chinese tapered roller bearings and U.S. tapered roller bearings all show the imported product selling at prices between 22 percent and 54 percent less than the domestic product. One-hundred-seven of the 111 price comparisons between the Romanian product and the U.S. product show Romanian tapered roller bearings being sold at prices from 65 percent to 2 percent lower than the U.S. product. The remaining four comparisons show Romanian tapered roller bearings selling at prices from 1 percent over to 10 percent under the U.S. product price.

Most of the prices of Hungarian, Chinese, Romanian, and Yugoslavian tapered roller bearings were in the range of 30 percent to 60 percent lower

than the U.S. product price. The lower prices of tapered roller bearings from these countries may be due in part to the imported products inferior quality, whether intrinsic or strictly as perceived by U.S. purchasers. Quality considerations are discussed in the preceding section of this report.

Similar to price comparisons based on data submitted by U.S. producers and importers, price comparisons based on data submitted by domestic purchasers largely show the subject imported tapered roller bearings selling in the U.S. market at prices lower than the domestic product. Purchaser price data for Hungarian bearings were scant and resulted in only four price comparisons, which show the imported product selling at 12 percent and 5 percent higher than the U.S.-produced bearings and at 50 percent and 40 percent below the U.S.-produced bearings. Of the 18 price comparisons for Italian bearings, 10 show the imported product selling prices at from 15 percent to 1 percent less, 7 at prices the same as the domestic product, and 1 at 3 percent higher than the domestic product price.

Of the 79 price comparisons between Japanese and U.S. bearings, 73 show the imported product selling at prices from 46 percent to 2 percent less than the U.S. product, and 6 show the Japanese product selling from 12 percent to 3 percent higher than the U.S. product. All 10 comparisons of prices of tapered roller bearings imported from China show the imported product selling from 54 percent to 38 percent lower in price than the U.S. bearings. For Romanian tapered bearings, 43 of the 44 price comparisons show the imported bearings selling at prices from 57 percent to 3 percent less than the U.S. product, while the remaining comparison shows the import price at 15 percent higher.

Lost sales

* * * * *

Lost sales involving Romania.--

* * * * *

* * * * *

Lost sales involving China.--

* * * * *

Lost sales involving Hungary.--

* * * * *

Lost revenues

* * * * *

* * * * *

* * * * *

Table 27.--Tapered roller bearings: Weighted-average prices for sales of LM11949/10 sets (1.781-inch outside diameter) ^{1/}, to OEM's and distributors, as reported by U.S. producers and importers, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Sales to OEM's												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	-	-	***	-	***	***	***	-	***	***	***	***
Italy.....	-	-	-	-	-	-	-	***	***	***	-	-
Japan.....	***	***	-	-	***	***	-	***	-	***	***	-
Yugoslavia...	***	***	***	***	***	***	***	***	***	***	***	***
Romania.....	***	***	***	***	***	***	***	***	***	***	-	-
Sales to distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	***	-	-	***	***	***	***	***	-	-	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***
China.....	***	***	***	***	***	***	***	***	***	***	***	***
Romania.....	***	***	***	***	***	***	***	***	***	***	***	***
Yugoslavia...	***	***	***	***	***	***	***	***	***	***	***	***

^{1/} LM11949/10 is a TRB set consisting of a TS single-row, straight 0.750-inch bore cone and a TS single-row cup, 1.781-inch outside diameter.

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

Table 28.--Tapered roller bearings: Weighted-average prices for sales of LM11949 cone assemblies ^{1/} to OEM's and distributors, as reported by U.S. producers and importers, in dollars per bearing, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Sales to OEM's												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	-	-	***	***	***	***	***	***	***	***	***	***
Yugoslavia...	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***
Romania.....	***	***	***	***	***	***	***	***	***	***	***	***
Italy.....	***	***	***	***	***	***	***	***	***	***	***	***
Sales to distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	***	-	-	***	***	***	***	***	***	-	***	***
Italy.....	-	-	-	-	-	-	***	***	***	***	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***
Romania.....	***	***	***	***	***	***	***	***	***	***	***	***
Yugoslavia...	***	***	***	***	***	***	***	***	***	***	***	***

^{1/} LM11949 is a TS single-row cone assembly, straight 0.750 inch bore; the matching cup is under 4 inches in outside diameter.

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

Table 29.--Tapered roller bearings: Weighted-average prices for sales of 25580 cone assemblies 1/, to OEM's and distributors, as reported by U.S. producers and importers, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Sales to OEM's												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	-	-	-	-	-	-	-	-	***	***	***	***
Romania.....	***	***	***	***	***	***	***	***	***	***	***	***
Sales to distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	-	-	-	-	-	-	-	-	***	***	***	***
China.....	-	***	-	***	-	-	-	-	-	-	-	-
Romania.....	***	***	***	***	***	***	***	***	-	***	***	***

1/ 25580 is a cone assembly, TS single-row, straight 1.750-inch bore; the matching cup is under 4 inches in outside diameter.

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

Table 30.--Tapered roller bearings: Weighted-average prices for sales of HM212049 cone assemblies ^{1/} to OEM's and distributors, as reported by U.S. producers and importers, in dollars per bearing, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Sales to OEM's												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***
Romania.....	-	-	***	-	-	***	***	***	***	***	***	***
Sales to distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	***	***	***	***	***	***	***	-	-	-	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***
Romania.....	-	-	***	***	***	***	***	***	***	***	***	***

^{1/} HM212049 is TS single-row cone assembly, straight 2.625-inch bore; the matching cup is over 4 inches in outside diameter.

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

Table 31.--Tapered roller bearings: Weighted-average prices for sales of HM212010 cups (4.8125-inch outside diameter) ^{1/}, to OEM's and distributors, as reported by U.S. producers and importers, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Sales to OEM's												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***
Sales to distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***

^{1/} HM212010 is a TS single-row cup, 4.8125 inches in outside diameter.

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

Table 32.--Tapered roller bearings: Weighted-average prices for sales of LM67010 cups ^{1/} to OEM's and distributors, as reported by U.S. producers and importers, in dollars per bearing, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Sales to OEM's												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	***	-	***	***	***	***	***	-	***	***	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***
China.....	-	-	-	-	-	-	***	-	***	***	-	-
Romania.....	***	***	***	***	***	***	***	***	***	***	***	***
Italy.....	***	***	***	***	***	***	***	***	***	***	***	***
Sales to distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	***	***	***	***	***	***	-	***	-	-	***	***
Japan.....	***	***	***	***	***	***	-	-	***	***	***	-
Romania.....	***	***	***	-	***	***	***	***	***	***	***	***
Yugoslavia...	***	***	***	***	***	***	***	***	***	***	***	***

^{1/} LM67010 is TS single-row cup, 2.328 inches in outside diameter.

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

Table 33.--Tapered roller bearings: Weighted-average prices for purchasers of LM11949/10 sets ^{1/} by OEM's and distributors, as reported by U.S. purchasers, dollars per bearing, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Sales to OEM's												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Hungary.....	-	-	-	-	-	-	-	-	-	***	-	***
Italy.....	-	-	-	-	-	-	-	-	***	***	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***
Romania.....	-	***	-	***	***	***	-	-	***	-	-	-
Sales to distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***
China.....	***	***	***	***	***	-	-	-	-	-	-	-

^{1/} LM11949/10 is a TRB set consisting of a TS single-row, straight 0.750-inch bore cone and a TS single-row cup, 1.781-inch outside diameter.

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

Table 34--Tapered roller bearings: Weighted-average prices for purchases of LM11949 cone assemblies 1/ by OEM's and distributors, as reported by U.S. purchasers, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Purchases by OEM's												
United States.....	***	***	***	***	***	***	***	***	***	***	***	-
Italy.....	-	-	-	-	-	-	-	-	***	***	***	***
Purchases by distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	-
Hungary.....	-	-	***	-	-	-	-	-	-	-	-	***
Italy.....	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	***	***	-	-	-	-	***	-	-	***	-
China.....	-	-	-	-	-	***	-	-	-	-	-	-

1/ LM11949 is a TS single-row cone assembly, straight 0.750 inch bore; the matching cup is under 4 inches in outside diameter.

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

Table 35.--Tapered roller bearings: Weighted-average prices for purchases of 22580 cone assemblies ^{1/} by OEM's and distributors, as reported by U.S. purchasers, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Purchases by OEM's												
United States.....	***	***	***	-	-	-	-	***	***	***	-	-
Romania.....	***	***	***	***	***	***	***	***	***	***	***	***
Purchases by distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	-	-	-	-	-	-	***	-	-	***	***
China.....	***	***	-	-	***	-	***	-	-	-	-	-

^{1/} 25580 is a cone assembly, TS single-row, straight 1.750-inch bore; the matching cup is under 4 inches in outside diameter.

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

Table 36.--Tapered roller bearings: Weighted-average prices for purchases of HM212049 cone assemblies 1/ by OEM's and distributors, as reported by U.S. purchasers, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Purchases by OEM's												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	-	***	-	***	***	***	***	***	***	***	***
Romania.....	***	-	***	-	-	-	-	-	-	-	-	-
Purchases by distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	-
China.....	***	***	-	***	-	-	-	-	***	***	***	-
Hungary.....	-	-	-	-	-	***	-	-	-	-	-	-
Romania.....	-	-	-	***	-	-	-	-	***	***	***	-

1/ HM212049 is TS single-row cone assembly, straight 2.625-inch bore; the matching cup is over 4 inches in outside diameter.

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

Table 37.--Tapered roller bearings: Weighted-average prices for purchases of HM212010 cups ^{1/} by OEM's and distributors, as reported by U.S. purchasers, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Purchases by OEM's												
United States.....	***	-	-	-	***	-	-	-	***	-	-	-
Japan.....	***	-	-	-	***	-	-	-	***	-	-	-
Purchases by distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	***	***	***	-	***	-	-	***	***	***	***

^{1/} HM212010 is a TS single-row cup, 4.8125 inches in outside diameter.

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

Table 38.--Tapered roller bearings: Weighted-average prices for purchases of LM67010 cups ^{1/} by OEM's and distributors, as reported by U.S. purchasers, by quarters, January 1984-June 1986

Country	1984				1985				1986			
	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.	Jan.- Mar.	Apr.- Jun.	Jul.- Sept.	Oct.- Dec.
Purchases by OEM's												
United States.....	***	-	-	-	***	-	-	***	***	***	-	***
Japan.....	***	***	***	***	***	***	***	***	***	***	***	***
Romania.....	***	***	***	***	***	***	***	***	***	***	***	***
Purchases by distributors												
United States.....	***	***	***	***	***	***	***	***	***	***	***	***
Japan.....	***	-	-	-	-	***	***	***	***	***	***	***

^{1/} LM67010 is TS single-row cup, 2.328 inches in outside diameter.

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

Table 39.--Tapered roller bearings: Average margins (per unit) by which imports of LM11949/10 sets (1.7810-inch outside diameter) undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	Hungary				Italy				Japan			
	Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:												
Jan.-Mar....	-	-	***	54.0	-	-	-	-	***	4.7	***	36.3
Apr.-June...	-	-	-	-	-	-	-	-	***	(16.0)	***	27.4
July-Sept...	***	32.0	-	-	-	-	-	-	-	-	***	27.4
Oct.-Dec....	-	-	***	52.8	-	-	-	-	-	-	***	21.0
1985:												
Jan.-Mar....	***	45.4	***	49.3	-	-	-	-	***	34.4	***	16.0
Apr.-June...	***	36.0	***	49.3	-	-	-	-	***	21.9	***	12.9
July-Sept...	***	41.8	***	52.0	-	-	-	-	-	-	***	21.3
Oct.-Dec....	-	-	***	52.0	***	21.7	-	-	-	-	***	24.0
1986:												
Jan.-Mar....	***	4.4	-	-	***	(23.9)	-	-	-	-	***	21.3
Apr.-June...	***	29.3	-	-	***	32.1	-	-	***	(45.0)	***	34.7
July-Sept...	***	22.9	***	51.0	-	-	-	-	***	(45.0)	***	9.0
Oct.-Dec....	***	20.0	***	45.7	-	-	-	-	-	-	***	30.0

Continued--

Table 39.--Tapered roller bearings: Average margins (per unit) by which imports of LM11949/10 sets (1.7810-inch outside diameter) undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986--Continued

Period	China		Romania		Sales to distributors		Yugoslavia		Sales to distributors	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:										
Jan.-Mar....	***	39.5	***	37.8	***	52.8	***	37.8	***	52.8
Apr.-June...	***	21.8	***	38.9	***	54.0	***	38.9	***	54.0
July-Sept...	***	53.6	***	35.5	***	52.8	***	36.6	***	52.8
Oct.-Dec....	***	43.1	***	36.6	***	52.8	***	37.8	***	52.8
1985:										
Jan.-Mar....	***	52.9	***	41.8	***	49.3	***	45.4	***	49.3
Apr.-June...	***	52.9	***	25.8	***	49.3	***	36.0	***	49.4
July-Sept...	***	29.4	***	25.0	***	36.4	***	41.8	***	51.1
Oct.-Dec....	***	39.7	***	40.8	***	51.1	***	41.8	***	52.0
1986:										
Jan.-Mar....	***	37.8	***	4.4	***	49.3	***	5.3	***	51.1
Apr.-June...	***	33.4	***	(10.0)	***	53.3	***	29.3	***	53.3
July-Sept...	***	28.6	-	-	***	50.0	***	22.9	***	51.0
Oct.-Dec....	***	39.6	-	-	***	45.2	***	20.0	***	45.7

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

Table 40.--Tapered roller bearings: Average margins (per unit) by which imports of LM11949 cone assemblies undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	Hungary				Italy				Japan			
	Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:												
Jan.-Mar....	-	-	***	36.9	-	-	-	-	***	16.5	***	24.4
Apr.-June...	-	-	-	-	-	-	-	-	***	(22.6)	***	33.1
July-Sept...	***	36.5	-	-	-	-	-	-	***	20.9	***	19.9
Oct.-Dec....	***	26.0	***	52.2	-	-	-	-	***	9.0	***	33.5
1985:												
Jan.-Mar....	***	31.8	***	54.4	***	31.8	-	-	***	17.3	***	47.9
Apr.-June...	***	26.7	***	54.4	***	28.6	-	-	***	34.3	***	47.9
July-Sept...	***	7.6	***	6.0	***	5.1	-	-	***	15.2	***	41.7
Oct.-Dec....	***	5.1	***	56.0	***	5.1	***	57.1	***	(7.6)	***	47.6
1986:												
Jan.-Mar....	***	(2.7)	***	56.0	***	13.7	***	1.8	***	5.5	***	18.4
Apr.-June...	***	6.3	-	-	***	21.2	***	2.4	***	36.2	***	14.8
July-Sept...	***	12.5	***	59.2	***	21.2	***	3.6	***	6.2	***	14.8
Oct.-Dec....	***	6.2	***	55.6	***	21.2	***	3.6	***	16.2	***	34.9

Continued--

Table 40.--Tapered roller bearings: Average margins (per unit) by which imports of LM11949 cone assemblies undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986--Continued

Period	Romania				Yugoslavia			
	Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:								
Jan.-Mar....	***	26.6	***	.5	***	26.6	***	48.1
Apr.-June...	***	32.1	***	36.9	***	32.1	***	36.9
July-Sept....	***	36.5	***	50.3	***	37.4	***	50.3
Oct.-Dec....	***	26.0	***	40.4	***	28.0	***	51.6
1985:								
Jan.-Mar....	***	31.8	***	54.4	***	33.6	***	54.4
Apr.-June...	***	25.7	***	54.4	***	30.5	***	54.4
July-Sept....	***	(1.3)	***	54.2	***	6.3	***	54.8
Oct.-Dec....	***	1.3	***	56.0	***	2.5	***	56.0
1986:								
Jan.-Mar....	***	(9.6)	***	51.8	***	0.0	***	56.0
Apr.-June...	***	3.8	***	56.2	***	8.8	***	56.2
July-Sept....	***	(1.2)	***	58.6	***	12.5	***	59.2
Oct.-Dec....	***	23.8	***	47.3	***	6.3	***	55.6

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

Table 41.--Tapered roller bearings: Average margins (per unit) by which imports of "25580" cone assemblies undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	Hungary		Sales to distributors		China		Sales to distributors		Romania		Sales to distributors	
	Sales to OEM's				Sales to distributors		Sales to OEM's				Sales to distributors	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:												
Jan.-Mar.....	-	-	-	-	-	-	***	39.4	***	47.2		
Apr.-June.....	-	-	-	-	***	41.9	***	39.1	***	48.2		
July-Sept.....	-	-	-	-	-	-	***	31.3	***	64.7		
Oct.-Dec.....	-	-	-	-	***	41.9	***	38.1	***	45.5		
1985:												
Jan.-Mar.....	-	-	-	-	-	-	***	41.8	***	50.9		
Apr.-June.....	-	-	-	-	-	-	***	40.1	***	50.9		
July-Sept.....	-	-	-	-	-	-	***	41.4	***	50.8		
Oct.-Dec.....	-	-	-	-	-	-	***	38.0	***	50.9		
1986:												
Jan.-Mar.....	***	32.5	***	57.4	-	-	***	35.4	-	-		
Apr.-June.....	***	33.2	***	59.2	-	-	***	25.0	***	59.2		
July-Sept.....	***	30.8	***	59.2	-	-	***	26.8	***	59.2		
Oct.-Dec.....	***	29.9	***	59.1	-	-	***	29.4	***	59.1		

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

Table 42.--Tapered roller bearings: Average margins (per unit) by which imports of HM212049 cone assemblies undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	Hungary				Japan				Romania			
	Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:												
Jan.-Mar....	***	18.4	***	34.3	***	10.0	***	5.1	-	-	-	-
Apr.-June...	***	19.1	***	32.6	***	12.6	***	20.6	-	-	-	-
July-Sept...	***	19.1	***	34.4	***	15.8	***	21.7	***	17.0	***	14.3
Oct.-Dec....	***	1.8	***	30.0	***	13.9	***	8.4	-	-	***	8.5
1985:												
Jan.-Mar....	***	18.4	***	29.1	***	15.5	***	(11.8)	-	-	***	29.5
Apr.-June...	***	13.0	***	33.4	***	4.1	***	21.5	***	15.2	***	34.1
July-Sept...	***	13.0	***	30.9	***	12.7	***	18.6	***	14.3	***	9.7
Oct.-Dec....	***	13.0	-	30.9	***	10.0	***	17.8	***	14.3	***	9.9
1986:												
Jan.-Mar....	***	16.4	-	-	***	8.8	***	16.1	***	13.2	***	24.5
Apr.-June...	***	19.0	-	-	***	10.5	***	13.4	***	11.6	***	1.6
July-Sept...	***	16.6	***	34.7	***	12.1	***	16.3	***	13.5	***	7.9
Oct.-Dec....	***	24.7	***	32.7	***	18.6	***	23.4	***	14.3	***	5.1

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

Table 43.--Tapered roller bearings: Average margins (per unit) by which imports of HM212010 cups (4.8125-inch outside diameter) undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	Japan			
	Sales to OEM's		Sales to distributors	
	Margin	Percent	Margin	Percent
1984:				
Jan.-Mar.....	***	11.9	***	39.1
Apr.-June.....	***	14.8	***	10.2
July-Sept.....	***	13.3	***	29.6
Oct.-Dec.....	***	18.1	***	24.9
1984:				
Jan.-Mar.....	***	20.4	***	30.2
Apr.-June.....	***	18.1	***	27.2
July-Sept.....	***	19.9	***	11.8
Oct.-Dec.....	***	20.1	***	10.4
1984:				
Jan.-Mar.....	***	18.9	***	(6.4)
Apr.-June.....	***	15.5	***	7.5
July-Sept.....	***	16.5	***	27.9
Oct.-Dec.....	***	16.4	***	(0.7)

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

Table 44.--Tapered roller bearings: Average margins (per unit) by which imports of LM67010 cups under sold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	Hungary				Japan				China	
	Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors		Sales to OEM's	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:										
Jan.-Mar....	***	26.2	***	45.0	***	(7.7)	***	45.0	-	-
Apr.-June...	-	-	***	45.0	***	(7.7)	***	40.0	-	-
July-Sept...	***	36.3	***	52.0	***	(6.1)	***	24.0	-	-
Oct.-Dec....	***	27.3	***	52.0	***	(6.1)	***	32.0	-	-
1985:										
Jan.-Mar....	***	35.4	***	55.8	***	13.8	***	41.3	-	-
Apr.-June...	***	38.2	***	56.2	***	19.1	***	41.9	-	-
July-Sept...	***	25.8	-	-	***	24.2	-	-	***	45.2
Oct.-Dec....	-	-	***	56.2	***	19.0	-	-	-	-
1986:										
Jan.-Mar....	***	35.8	-	-	***	29.9	***	13.0	***	41.8
Apr.-June...	***	43.5	-	-	***	33.9	***	(15.4)	***	37.1
July-Sept...	***	43.5	***	54.3	***	17.7	***	(14.1)	-	-
Oct.-Dec....	***	41.5	***	52.2	***	35.4	-	-	-	-

Continued--

Table 44.--Tapered roller bearings: Average margins (per unit) by which imports of LM67010 cups undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986--Continued

Period	Romania				Yugoslavia			
	Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:								
Jan.-Mar....	***	35.4	***	45.0	***	35.4	***	45.0
Apr.-June...	***	35.4	***	55.0	***	35.4	***	45.0
July-Sept...	***	37.9	***	60.0	***	36.4	***	52.0
Oct.-Dec....	***	39.4	-	-	***	27.3	***	52.0
1985:								
Jan.-Mar....	***	36.9	***	55.7	***	35.4	***	55.7
Apr.-June...	***	38.2	***	56.1	***	38.2	***	56.1
July-Sept...	***	33.9	***	56.2	***	32.3	***	56.2
Oct.-Dec....	***	33.3	***	57.1	***	33.3	***	58.1
1986:								
Jan.-Mar....	***	38.8	***	54.3	***	47.8	***	54.3
Apr.-June...	***	35.5	***	57.1	***	41.9	***	58.2
July-Sept...	***	35.5	***	54.3	***	41.9	***	54.3
Oct.-Dec....	***	40.0	***	62.0	***	43.1	***	52.2

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

Table 45.--Tapered roller bearings: Average margins (per unit) by which purchases of imports of LM11949/10 sets by purchasers, undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	Hungary		Italy		Japan				Romania		China	
	Sales to OEM's		Sales to OEM's		Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:												
Jan.-Mar.....	-	-	-	-	***	12.0	***	21.8	-	-	-	\$0.97
Apr.-June.....	-	-	-	-	***	12.0	***	21.8	***	24.6	***	48.5
July-Sept.....	-	-	-	-	***	14.8	***	19.3	-	-	***	48.0
Oct.-Dec.....	-	-	-	-	***	16.2	***	22.9	***	24.6	***	48.8
1985:												
Jan.-Mar.....	-	-	-	-	***	(2.7)	***	6.5	***	2.7	***	37.9
Apr.-June.....	-	-	-	-	***	1.8	***	19.3	***	2.7	-	-
July-Sept.....	-	-	-	-	***	2.7	***	18.7	-	-	-	-
Oct.-Dec.....	-	-	-	-	***	4.5	***	17.2	-	-	-	-
1986:												
Jan.-Mar.....	-	6.5	***	0.0	***	3.2	***	6.7	***	(15.1)	-	-
Apr.-June.....	***	(5.3)	***	1.1	***	4.3	***	13.3	-	-	-	-
July-Sept.....	-	-	***	0.0	***	3.2	***	13.3	-	-	-	-
Oct.-Dec.....	***	(11.7)	***	1.1	***	4.3	***	(10.7)	-	-	-	-

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

Table 46.--Tapered roller bearings: Average margins (per unit) by which purchases of imports of LM11949 cone assemblies by purchasers undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	<u>Italy</u>				<u>Japan</u>		<u>China</u>	
	<u>Sales to OEM's</u>		<u>Sales to distributors</u>		<u>Sales to distributors</u>		<u>Sales to distributors</u>	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:								
Jan.-Mar.....	-	-	***	10.6	***	33.1	-	-
Apr.-June....	-	-	***	11.2	***	33.5	-	-
July-Sept....	-	-	***	11.2	***	33.5	-	-
Oct.-Dec.....	-	-	***	11.2	-	-	-	-
1985:								
Jan.-Mar.....	-	-	***	15.4	-	-	-	-
Apr.-June....	-	-	***	15.4	-	-	***	47.3
July-Sept....	-	-	***	13.3	-	-	-	-
Oct.-Dec.....	-	-	***	15.4	***	46.2	-	-
1986:								
Jan.-Mar.....	***	0.0	***	(2.9)	-	-	-	-
Apr.-June....	***	0.0	***	00.0	-	-	-	-
July-Sept....	***	0.0	***	00.0	***	39.2	-	-
Oct.-Dec.....	-	-	-	-	-	-	-	-

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

Table 47.--Tapered roller bearings: Average margins (per unit) by which purchases of imports of 22580 cone assemblies by purchasers undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	Japan		China		Romania	
	Sales to distributors Margin	Percent	Sales to distributors Margin	Percent	Sales to OEM's Margin	Percent
1984:						
Jan.-Mar.....	***	28.8	***	45.0	***	35.7
Apr.-June.....	-	-	***	45.0	***	35.7
July-Sept.....	-	-	-	-	***	41.6
Oct.-Dec.....	-	-	-	-	-	-
1985:						
Jan.-Mar.....	-	-	***	40.8	-	-
Apr.-June.....	-	-	-	-	-	-
July-Sept.....	-	-	***	53.8	-	-
Oct.-Dec.....	***	29.4	-	-	***	9.5
1986:						
Jan.-Mar.....	-	-	-	-	***	49.0
Apr.-June.....	-	-	-	-	***	42.6
July-Sept.....	***	15.5	-	-	-	-
Oct.-Dec.....	***	15.5	-	-	-	-

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

Table 48.--Tapered roller bearings: Average margins (per unit) by which purchases of imports of HM212049 cone assemblies by purchasers undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	Japan				Romania			
	Sales to OEM's		Sales to distributors		Sales to OEM's		Sales to distributors	
	Margin	Percent	Margin	Percent	Margin	Percent	Margin	Percent
1984:								
Jan.-Mar.....	***	(10.4)	***	24.4	***	18.9	-	-
Apr.-June.....	-	-	***	24.4	-	-	-	-
July-Sept.....	***	5.9	***	24.4	***	18.1	-	-
Oct.-Dec.....	-	-	***	20.7	-	-	***	16.7
1985:								
Jan.-Mar.....	***	8.3	***	28.4	-	-	-	-
Apr.-June.....	***	9.3	***	28.4	-	-	-	-
July-Sept.....	***	8.0	***	28.4	-	-	-	-
Oct.-Dec.....	***	12.3	***	28.4	-	-	-	-
1986:								
Jan.-Mar.....	***	18.4	***	15.5	-	-	***	6.9
Apr.-June.....	***	16.6	***	11.2	-	-	***	16.3
July-Sept.....	***	18.6	***	9.7	-	-	***	23.4
Oct.-Dec.....	***	15.1	-	-	-	-	-	-

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

Table 49.--Tapered roller bearings: Average margins (per unit) by which purchases of imports of HM212010 cups by purchasers undersold or (oversold) the U.S.-produced product, by countries of origin, types of customer, and quarters, January 1984-June 1986

Period	Japan			
	Sales to OEM's		Sales to distributors	
	Margin	Percent	Margin	Percent
1984:				
Jan.-Mar.....	***	15.7	***	41.0
Apr.-June.....	-	-	***	41.0
July-Sept.....	-	-	***	38.5
Oct.-Dec.....	-	-	***	38.5
1984:				
Jan.-Mar.....	***	32.4	-	-
Apr.-June.....	-	-	***	43.1
July-Sept.....	-	-	-	-
Oct.-Dec.....	-	-	-	-
1984:				
Jan.-Mar.....	***	32.4	***	11.2
Apr.-June.....	-	-	***	13.8
July-Sept.....	-	-	***	11.9
Oct.-Dec.....	-	-	***	9.0

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

Average margins (per unit) by which
 s by purchasers undersold or (oversold)
 ries of origin, types of customer, and

	Japan		Sales to distributors		Romania	
	Margin	Percent	Margin	Percent	Margin	Percent
1984:						
Jan.-Mar.....	***	25.0	***	33.7	***	30.0
Apr.-June.....	-	-	-	-	-	-
July-Sept.....	-	-	-	-	-	-
Oct.-Dec.....	-	-	-	-	-	-
1985:						
Jan.-Mar.....	***	26.2	-	-	***	31.1
Apr.-June.....	-	-	***	(12.0)	-	-
July-Sept.....	-	-	***	2.0	-	-
Oct.-Dec.....	***	2.2	***	2.0	***	8.7
1986:						
Jan.-Mar.....	***	33.9	***	2.0	***	43.5
Apr.-June.....	***	(7.9)	***	2.0	***	7.9
July-Sept.....	-	-	***	2.0	-	-
Oct.-Dec.....	***	(7.9)	***	2.0	***	15.8

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

Exchange rates

Exchange rate indices of the Japanese yen, the Italian lira, and the Yugoslav dinar indicate that during January 1983-December 1986 the quarterly nominal value of the Japanese yen and the Italian lira advanced 47.1 percent and 0.7 percent against the U.S. dollar, whereas the Yugoslav dinar depreciated 83.7 percent relative to the dollar. Quarterly exchange rate and producer price data pertaining to the countries supplying the products covered in these investigations are presented in table 51.

Because the level of inflation in Japan was similar to that in the United States over the 16-quarter period, changes in the real value of the yen were not significantly different from changes in the nominal value. In contrast, significantly higher levels of inflation in Italy and Yugoslavia during the period for which data were collected 1/ moderated much of the export price advantage gained through currency depreciation. The respective value of the lira and dinar adjusted for this inflation decreased irregularly during January 1983 through March 1985 and then increased sharply from April-June 1985 through April-June 1986. By April-June 1986 the respective real values of each of the aforementioned currencies had achieved levels that were 10.4 percent and 1.5 percent above January-March 1983 levels. 2/ This compares with apparent depreciations through June 1986 of 9.1 percent and 80.7 percent suggested by the nominal devaluation.

Reliable data for China, Hungary, and Romania are not available. Therefore, accurate measures of the real value of those currencies as discussed in this section cannot be calculated.

1/ The most recent real exchange rate data for the currencies of Italy and Yugoslavia are for January-March 1983 through April-June 1986.

2/ Real Yugoslav exchange rate data for April-June 1986, the last quarter for which data were collected, are derived from the Yugoslav Producer Price Index covering April only.

Table 51.—Exchange rates: 1/ Nominal-exchange-rate equivalents of selected currencies in U.S. dollars, real-exchange-rate equivalents, and producer price indicators in specified countries, 2/ indexed by quarters, January 1983–December 1986

U.S. Period	Italy			Japan			Yugoslavia			
	Pro- ducer Price Index	Pro- ducer Price Index	Nominal- exchange- rate index	Real- exchange- rate index 3/ <u>—US dollars/lira—</u>	Pro- ducer Price Index	Nominal- exchange- rate index	Real- exchange- rate index 3/ <u>—US dollars/yen—</u>	Pro- ducer Price Index	Nominal- exchange- rate index	Real- exchange- rate index 3/ <u>—US dollars/dinar—</u>
1983:										
Jan.–Mar...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Apr.–June..	100.3	101.6	94.7	96.0	99.0	99.2	98.0	107.4	84.8	90.8
July–Sept..	101.3	104.0	88.9	91.3	99.2	97.2	95.2	120.2	70.5	83.7
Oct.–Dec...	101.8	107.4	86.1	90.9	98.6	100.6	97.5	139.9	58.8	80.8
1984:										
Jan.–Mar...	102.9	110.8	84.2	90.7	98.7	102.1	97.9	159.6	55.9	86.8
Apr.–June..	103.6	113.3	83.5	91.4	98.6	102.7	97.8	163.5	52.3	82.6
July–Sept..	103.3	114.7	77.8	86.4	99.4	96.8	93.2	193.6	43.9	82.3
Oct.–Dec...	103.0	116.9	74.0	84.0	99.1	95.8	92.2	221.2	36.4	78.2
1985:										
Jan.–Mar...	102.9	120.1	69.2	80.9	99.5	91.5	88.5	248.3	30.1	72.6
Apr.–June..	103.0	122.7	73.4	87.5	98.8	94.0	90.2	287.7	26.3	73.6
July–Sept..	102.2	122.7	73.8	88.6	97.7	98.8	94.4	324.6	24.7	78.5
Oct.–Dec...	102.9	123.8	79.9	96.2	95.5	113.8	105.7	373.4	23.5	85.4
1986:										
Jan.–Mar...	101.3	123.2	87.6	106.4	93.2	125.5	115.4	472.4	22.0	102.7
Apr.–June..	99.4	120.7	90.9	110.4	89.3	138.6	124.5	<u>4/</u> 522.7	19.3	<u>4/</u> 101.5
July–Sept..	98.9	<u>5/</u>	97.5	<u>5/</u>	86.8	151.3	132.8	<u>5/</u>	17.3	<u>5/</u>
Oct.–Dec...	99.3	<u>5/</u>	100.7	<u>5/</u>	85.4	147.1	126.6	<u>5/</u>	16.3	<u>5/</u>

1/ Exchange rates expressed in U.S. dollars per unit of foreign currency.

2/ Producer price indicators--intended to measure final product prices--are based on average quarterly indexes presented in line 63 of the International Financial Statistics.

3/ The indexed real exchange rate represents the nominal exchange rate adjusted for the relative economic movement of each currency as measured here by the Producer Price Index in the United States and the respective foreign country. Producer prices in the United States decreased 0.7 percent during the period January 1983–December 1986, compared to a 14.6 percent decrease in Japan during the same period. In contrast, producer prices in Italy and Yugoslavia increased 20.7 percent and 422.7 percent as of April–June 1986, the last period for which the Producer Price Index is reported.

4/ Data for the final quarter presented above is derived from the Yugoslav Producer Price Index covering April only.

5/ Data not available.

Source: International Monetary Fund, International Financial Statistics, April 1986.

23ote.—January–March 1983=100.0.

APPENDIX A

FEDERAL REGISTER NOTICES OF THE COMMISSION

[Investigations Nos. 731-TA-341, 342, 344, 345, and 346 (Final)]

Tapered Roller Bearings and Parts Thereof, and Certain Housings, Incorporating Tapered Rollers from Hungary, Italy, The People's Republic of China, Romania, and Yugoslavia

AGENCY: International Trade Commission.

ACTION: Institution of final antidumping investigations and scheduling of a hearing to be held in connection with the investigations.

SUMMARY: The Commission hereby gives notice of the institution of final antidumping investigations Nos. 731-TA-341, 342, 344, 345, and 346 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Hungary (inv. No. 731-TA-341), Italy (inv. No. 731-TA-342), The People's Republic of China (inv. No. 731-TA-344), Romania (inv. No. 731-TA-345), and Yugoslavia (inv. No. 731-TA-346) of tapered roller bearings and parts therefor provided for in Tariff Schedules of the United States (TSUS) items 680.30 and 680.39; flange, take-up, cartridge, and hanger units incorporating tapered roller bearings, provided for in TSUS item 681.10; and tapered roller housings (except pillow blocks) incorporating tapered rollers, with or without spindles, whether or not for automotive use, provided for in item 692.32 or elsewhere in the TSUS, which have been found by the Department of Commerce, in preliminary determinations, to be sold in the United States at less than fair value (LTFV). Unless these investigations are extended, Commerce will make its final LTFV determinations on or before April 18, 1987, and the Commission will make

its final injury determinations by June 5, 1987 (see sections 735(a) and 735(b) of the Act (19 U.S.C. 1673d(a) and 1673d(b))).

For further information concerning the conduct of these investigations, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, Part 207, Subparts A and C (19 CFR Part 207), and Part 201, Subparts A through E (19 CFR Part 201).

EFFECTIVE DATE: February 8, 1987.

FOR FURTHER INFORMATION CONTACT: Maria Papadakis (202-523-0439), Office of Investigations, U.S. International Trade Commission, 701 E Street NW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-724-0002.

SUPPLEMENTARY INFORMATION:

Background

These investigations are being instituted as a result of affirmative preliminary determinations by the Department of Commerce that imports of tapered roller bearings and parts thereof, and certain housings incorporating tapered rollers from Hungary, Italy, the People's Republic of China, Romania, and Yugoslavia are being sold in the United States at less than fair value within the meaning of section 731 of the act (19 U.S.C. 1673). The investigations were requested in a petition filed on August 25, 1986, by the Timken Company, Canton, OH. In response to that petition the Commission conducted preliminary antidumping investigations and, on the basis of information developed during the course of those investigations, determined that there was a reasonable indication that an industry in the United States was materially injured by reason of imports of the subject merchandise (51 FR 36874).¹

Participation in the investigations.

Persons wishing to participate in these investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in

¹ The petition and the Commission's preliminary affirmative determinations also covered imports of the subject products from Japan. However, the Department of Commerce has determined that the investigation involving Japan is "extraordinarily complicated" and, accordingly, extended the date for its preliminary less-than fair value determination to March 23, 1987. In the event that Commerce's preliminary determination concerning imports from Japan is affirmative, the Commission will institute an investigation at that time.

§ 201.11 of the Commission's rules (19 CFR 201.11), not later than twenty-one (21) days after the 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.

Service list.

Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a 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 document filed by a party to the investigations must be served on all other parties to the investigations (as identified by the 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.

Staff report.

A public version of the prehearing staff report in these investigations will be placed in the public record on April 28, 1987, pursuant to § 207.21 of the Commission's rules (19 CFR 207.21).

Hearing.

The Commission will hold a hearing in connection with these investigations beginning at 9:30 a.m. on May 12, 1987, at the U.S. International Trade Commission Building, 701 E Street NW., Washington, DC. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission not later than the close of business (5:15 p.m.) on April 16, 1987. All persons desiring to appear at the hearing and make oral presentations should file prehearing briefs and attend a prehearing conference to be held at 9:30 a.m. on April 21, 1987 in room 117 of the U.S. International Trade Commission Building. The deadline for filing prehearing briefs is May 8, 1987.

Testimony at the public hearing is governed by § 207.23 of the Commission's rules (19 CFR 207.23). This rule requires that testimony be limited to a nonconfidential summary and analysis of material contained in prehearing briefs and to information not available at the time the prehearing brief was submitted. Any written materials submitted at the hearing must be filed in accordance with the procedures described below and any confidential materials must be submitted at least

three (3) working days prior to the hearing (see § 201.6(b)(2) of the Commission's rules (19 CFR 201.6(b)(2))).

Written submissions.

All legal arguments, economic analyses, and factual materials relevant to the public hearing should be included in prehearing briefs in accordance with § 207.22 of the Commission's rules (19 CFR 207.22). Posthearing briefs must conform with the provisions of § 207.24 (19 CFR 207.24) and must be submitted not later than the close of business on May 19, 1987. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before May 19, 1987.

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 Commission's rules (19 CFR 201.8). All written submissions except for confidential business 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 of the Commission.

Any business information for which confidential treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Confidential Business Information." Confidential submissions and requests for confidential treatment must conform with the requirements of § 201.8 of the Commission's rules (19 CFR 201.8).

Authority: These investigations are being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.20 of the Commission's rules (19 CFR 207.20).

Issued: February 17, 1987.

By order of the Commission.

Kenneth R. Mason,
Secretary.

[FR Doc. 87-3986 Filed 2-25-87; 8:45 am]

BILLING CODE 7020-02-M

[Investigation No. 731-TA-343 (Final)]**Tapered Roller Bearings and Parts Thereof, and Certain Housings Incorporating Tapered Rollers From Japan****AGENCY:** International Trade Commission.**ACTION:** Institution of final antidumping investigation and scheduling of a hearing to be held in connection with the investigation.

SUMMARY: The Commission hereby gives notice of the institution of final antidumping investigation No. 731-TA-343 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Japan of tapered roller bearings and parts thereof provided for in Tariff Schedules of the United States (TSUS) items 680.30 and 680.39; flange, take-up, cartridge, and hanger units incorporating tapered roller bearings, provided for in TSUS item 681.10; and tapered roller housings (except pillow blocks) incorporating tapered rollers, with or without spindles, whether or not for automotive use, provided for in item 692.32 or elsewhere in the TSUS, which have been found by the Department of Commerce, in a preliminary determination, to be sold in the United States at less than fair value (LTFV). Unless the investigation is extended, Commerce will make its final LTFV determination on or before June 8, 1987, and the Commission will make its final injury determinations by July 22,

1987 (see sections 735(a) and 735(b) of the Act (19 U.S.C. 1673d(a) and 1673d(b))).

For further information concerning the conduct of this investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, Part 207 (19 CFR Part 207), Subparts A and C, and Part 201 (19 CFR Part 201), Subparts A through C and Subpart E.

EFFECTIVE DATE: March 23, 1987.

FOR FURTHER INFORMATION CONTACT: Maria Papadakis (202-523-0439), Office of Investigations, U.S. International Trade Commission, 701 E Street NW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-724-0002. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-523-0181.

SUPPLEMENTARY INFORMATION:**Background**

This investigation is being instituted as a result of an affirmative preliminary determination by the Department of Commerce that imports of tapered roller bearings and parts thereof, and certain housings incorporating tapered rollers from Japan are being sold in the United States at less than fair value within the meaning of section 731 of the Act (19 U.S.C. 1673). This investigation was requested in a petition filed on August 25, 1986, by the Timken Company, Canton, OH, in which Timken alleged that imports of tapered roller bearings and parts thereof, and certain housings containing tapered rollers from Hungary, Italy, Japan, the People's Republic of China, Romania, and Yugoslavia were being sold in the United States at less than fair value.

In response to that petition, the Commission conducted preliminary antidumping investigations and, on the basis of information developed during the course of those investigations, determined that there was a reasonable indication that an industry in the United States was materially injured by reason of imports of the subject merchandise (51 FR 36874). On February 11, 1987, the Commission instituted final antidumping investigations on imports of the subject merchandise from Hungary (Inv. No. 731-TA-341), Italy (Inv. No. 731-TA-342), the People's Republic of China (Inv. No. 731-TA-344), Romania (Inv. No.

731-TA-345), and Yugoslavia (Inv. No. 731-TA-346) (52 FR 5841, Feb. 26, 1987).¹

Participation in the investigations

Persons wishing to participate in this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11(b) of the Commission's rules (19 CFR 201.11(b)), not later than twenty-one (21) days after the 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.

Service list

Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance. In accordance with §§ 201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by the 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.

Staff report

A public version of the prehearing staff report in this investigation will be placed in the public record on April 28, 1987, pursuant to § 207.21 of the Commission's rules (19 CFR 207.21).

Hearing

The Commission will hold a hearing in connection with this investigation and investigations 731-TA-341, 342, 344, 345, and 346 (Final) beginning at 9:30 a.m. on May 12, 1987, at the U.S. International Trade Commission Building, 701 E Street NW., Washington, DC. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission not later than the close of business (5:15 p.m.) on April 16, 1987. All persons desiring to appear at the hearing and make oral presentations

should file prehearing briefs and attend a prehearing conference to be held at 9:30 a.m. on April 21, 1987 in room 117 of the U.S. International Trade Commission Building. The deadline for filing prehearing briefs is May 8, 1987.

Testimony at the public hearing is governed by § 207.23 of the Commission's rules (19 CFR 207.23). This rule requires that testimony be limited to a nonconfidential summary and analysis of material contained in prehearing briefs and to information not available at the time the prehearing brief was submitted. Any written materials submitted at the hearing must be filed in accordance with the procedures described below and any confidential materials must be submitted at least three (3) working days prior to the hearing (see § 201.6(b)(2) of the Commission's rules (19 CFR 201.6(b)(2))).

Written submissions

All legal arguments, economic analyses, and factual materials relevant to the public hearing should be included in prehearing briefs in accordance with § 207.22 of the Commission's rules (19 CFR 207.22). Posthearing briefs must conform with the provisions of § 207.24 (19 CFR 207.24) and must be submitted not later than the close of business on May 19, 1987. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before May 19, 1987.

A period for submitting supplemental briefs will be provided for Parties in conjunction with investigation No. 731-TA-343; details concerning the date and nature of the filing of such supplemental briefs will be provided at the Commission's hearing on May 12, 1987.

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 Commission's rules (19 CFR 201.8). All written submissions except for confidential business 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 business information for which confidential treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Confidential Business Information." Confidential submissions and requests for confidential treatment must conform with the requirements of § 201.6 of the Commission's rules (19 CFR 201.6).

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, Title VII. This notice is published pursuant to § 207.20 of the Commission's rules (19 CFR 207.20).

Issued: April 2, 1987.

By order of the Commission,
Kenneth R. Mason,
Secretary.

[FR Doc. 87-7790 Filed 4-7-87; 8:45 am]

BILLING CODE 7020-02-M

(Investigations Nos. 731-TA-342 and 346 (Final))

Tapered Roller Bearings and Parts Thereof, and Certain Housings Incorporating Tapered Rollers From Italy and Yugoslavia

AGENCY: International Trade Commission.

ACTION: Revised schedule for the subject investigations.

EFFECTIVE DATE: March 30, 1987.

FOR FURTHER INFORMATION CONTACT: Maria Papadakis (202-523-0439), Office of Investigations, U.S. International Trade Commission, 701 E Street NW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-724-0002. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-523-0161.

SUPPLEMENTARY INFORMATION: On Feb. 11, 1987, the Commission instituted the subject investigations and established a schedule for their conduct (52 FR 5841, Feb. 26, 1987). Subsequently, the Department of Commerce extended the date for its final determinations in these investigations from April 20, 1987, to June 22, 1987 (52 FR 6361, 6366). The Commission, therefore, is revising its schedule in these investigations to conform with Commerce's new schedule.

The date of the Commission's public hearing on these investigations remains unchanged as scheduled in its notice of institution (52 FR 5841, February 26, 1987). This schedule is as follows: requests to appear at the hearing are to be filed with the Secretary to the Commission not later than the close of business April 16, 1987; the prehearing conference will be held in room 117 of the U.S. International Trade

¹ The date of Commerce's preliminary determinations for all of the countries subject to investigation, except Japan, was February 6, 1987. However, the Department of Commerce determined that the investigation involving Japan was "extraordinarily complicated" and, accordingly, extended the date for its preliminary less-than-fair-value determination to March 23, 1987.

Commission Building on April 21, 1987, at 9:30 a.m.; the public version of the prehearing staff report will be placed on the public record on April 28, 1987; the deadline for filing prehearing briefs is May 8, 1987; the hearing will be held in room 331 of the U.S. International Trade Commission Building on May 12, 1987, at 9:30 a.m.; and the deadline for filing posthearing briefs is the close of business on May 19, 1987.

A period for submitting additional briefs will be provided for parties in conjunction with investigations Nos. 731-TA-342 and 346; the deadline for filing supplemental briefs is July 29, 1987. Such supplemental briefs should be limited to information not available at the time the posthearing brief was submitted, and should be filed in accordance with the Commission's rules.

For further information concerning these investigations see the Commission's notice of investigation cited above and the Commission's Rules of Practice and Procedure, Part 207 (19 CFR Part 207), Subparts A and C, and Part 201 (19 CFR Part 201), Subparts A through C and Subpart E.

Authority: These investigations are being conducted under authority of the Tariff Act of 1930, Title VII. This notice is published pursuant to § 201.10 of the Commission's rules (19 CFR 201.10).

Issued: April 2, 1987.

By order of the Commission.

Kenneth R. Mason,

Secretary.

[FR Doc. 87-7791 Filed 4-7-87; 8:45 am]

BILLING CODE 7020-02-M

APPENDIX B

LIST OF WITNESSES APPEARING AT THE COMMISSION'S HEARING

CALENDAR OF PUBLIC HEARING

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

Subject : Tapered Roller Bearings & Parts Thereof,
and Certain Housings Incorporating
Tapered Rollers from Hungary, Italy,
Japan, The People's Republic of China,
Romania and Yugoslavia

Inv. Nos. : 731-TA-341, 342, 343, 344, 345 & 346 (Final)

Date and time: May 12, 1987 - 9:30 a.m.

Sessions were held in connection with the investigation in the Hearing Room of the United States International Trade Commission, 701 E Street, N.W., in Washington.

In support of the imposition of antidumping duties:

Stewart and Stewart--Counsel
Washington, D.C.
on behalf of

The Timken Company, Canton, Ohio

Joseph F. Toot, Jr., President

J. Kevin Ramsey, Vice President, Finance and Law,
Secretary and Treasurer

John F. Hill, Director--Marketing--Bearings--North
and South America

Scott C. Mathot, Director--Manufacturing--Bearings--
North and South America

Stephen A. Perry, Director--Accounting

Richard C. Johns, Manager--Market Research--Bearings

William A. Maddox, General Manager--Marketing
Administration--Bearings

Scott A. Scherff, Esq., Senior Corporate Attorney

Eugene L. Stewart--OF COUNSEL

In opposition to the imposition of antidumping duties:

Barnes, Richardson & Colburn--Counsel
Washington, D.C.
on behalf of

American NTN Bearing Manufacturing Corporation,
NTN Toyo Bearing Company, Ltd., and NTN
Bearing Corporation of America

Professor George W. Wilson, Indiana University

William C. Hayes, President, NTN Bearing
Corporation of America

Robert E. Burke)
Gunter von Conrad)--OF COUNSEL

Dykema, Gossett, Spencer, Goodnow & Trigg--Counsel
Detroit, Michigan
on behalf of

NTN Bower Corporation

Robert H. Gorlin--OF COUNSEL

Tanaka, Ritger & Middleton--Counsel
Washington, D.C.
on behalf of

Koyo Seiko Co., Ltd. and Koyo Corporation of
U.S.A., its U.S. subsidiaries

K. Matsuyama, President, American Koyo
Corporation, a subsidiary of Koyo
Corporation of U.S.A.

Larry Marsalek, Assistant to the General
Manager, American Koyo Corporation, a
subsidiary of Koyo Corporation of U.S.A.

Chuck Brandt, Manager, American Koyo
Corporation, a subsidiary of Koyo
Corporation of U.S.A.--Detroit
Division

In opposition to the imposition of antidumping duties:

Y. Yoshimi, Section Manager, Koyo Seiko Co. Ltd.

M. Cribb, American Koyo Corporation Bearing
Manufacturing Co.

T. Kunimatsu, American Koyo Corporation,
Bearing Manufacturing Co.

H. William Tanaka)
B. Jenkins Middleton) --OF COUNSEL
Patrick F. O'Leary)
Michele N. Tanaka)

Sharretts, Paley, Carter & Blauvelt, P.C.--Counsel
Washington, D.C.
on behalf of

Caterpillar Inc.

Michael Dykstra, Buyer, Central Purchasing
and Purchased Finished Division

Peter O. Suchman--OF COUNSEL

White & Case--Counsel
Washington, D.C.
on behalf of

RIV-SKF Officine di Villar Perosa S.p.A.,
Torino, Italy

Thomas E. Schofield, President, Unity Railway
Supply Co., Inc.

Edward P. Trouteaud, Product Manager, TRB SKF
Industries

John W. Barnum)
Gabrielle G. Gallegos) --OF COUNSEL

Stein, Shostak, Shostak & O'Hara--Counsel
Los Angeles, California
on behalf of

Marsuda-Rogers International (Hungary, Romania
and Yugoslavia)

Edward Hertz, Executive Vice President

Robert Glenn White--OF COUNSEL

In opposition to the imposition of antidumping duties:

Bryan, Cave, McPheeters & McRoberts--Counsel
Washington, D.C.
on behalf of

Magyar Gordulocsopagy Muvek (MGM), Hungarian
manufacturer and exporter of tapered roller
bearings

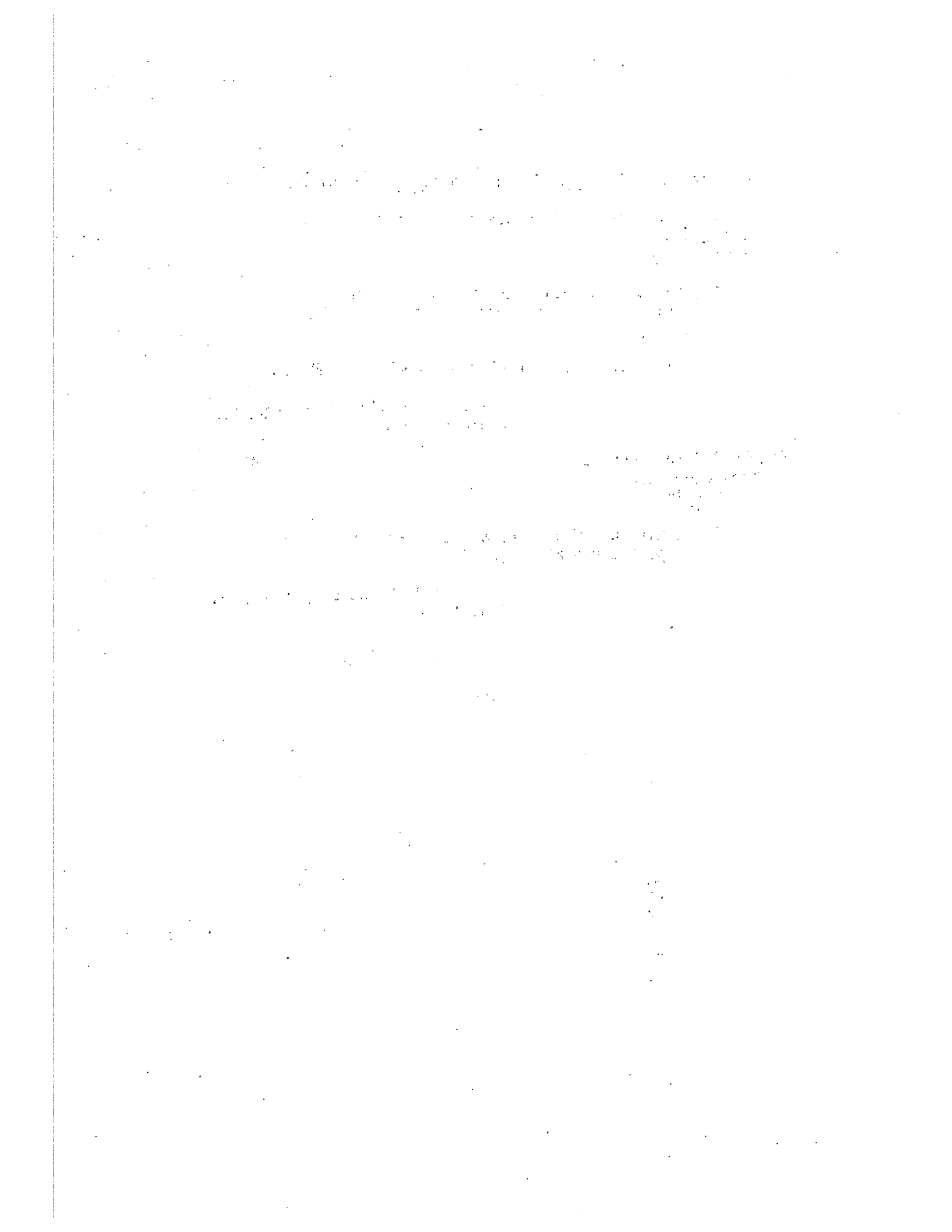
Dr. Samuel M. Rosenblatt, Economist, SMR, Inc.

Peter D. Ehrenhaft) --OF COUNSEL
Laura Profeta)

Graham & James--Counsel
Washington, D.C.
on behalf of

China National Machinery & Equipment Import
& Export Corporation (CMEC)

Lawrence R. Walders) --OF COUNSEL
Samuel Zhang)



APPENDIX C

FEDERAL REGISTER NOTICES OF COMMERCE

[A-437-601]

Final Determination of Sales at Less Than Fair Value; Tapered Roller Bearings and Parts Thereof, Finished or Unfinished, From the Hungarian People's Republic

AGENCY: Import Administration, International Trade Administration, Commerce.

ACTION: Notice.

SUMMARY: We have determined that tapered roller bearings and parts thereof, finished or unfinished (tapered roller bearings), from the Hungarian People's Republic (Hungary) are being, or are likely to be, sold in the United States at less than fair value. We have also determined that critical circumstances do not exist in these investigations. We have notified the U.S. International Trade Commission (ITC) of our determination, and we have directed the U.S. Customs Service to continue to suspend the liquidation of all entries of the subject merchandise that are entered, or withdrawn from warehouse, for consumption on or after the date of publication of this notice, and to require a cash deposit or bond for each such entry in an amount equal to the estimate dumping margin as described in the "continuation of Suspension of Liquidation" section of this notice.

EFFECTIVE DATE: May 8, 1987.

FOR FURTHER INFORMATION CONTACT: Mary Jenkins (202/377-1756) or John R. Brinkman (202/377-3965), Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230.

SUPPLEMENTARY INFORMATION:

Final Determination

We have determined that tapered roller bearings from Hungary are being, or are likely to be, sold in the United States at less than fair value, as provided in section 735 of the Tariff Act of 1930, as amended (the Act)(19 U.S.C. 1673d(a)). The weighted-average margin of sales at less than fair value is 7.42 percent.

Case History

On August 25, 1986, we received a petition in proper form filed by the Timken Company, on behalf of the United States industry producing tapered roller bearings. In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR - 353.36), the petition alleged that imports of the subject merchandise from

Hungary 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 Act, and that these imports are causing material injury, or threaten material injury, to a United States industry.

After reviewing the petition, we determined that it contained sufficient grounds upon which to initiate an antidumping duty investigation. We initiated such an investigation on September 15, 1986 (51 FR 33284, September 19, 1986) and notified the ITC of our action.

On October 2, 1986, the ITC determined that there is a reasonable indication that imports of TRBs from Hungary are materially injuring a U.S. industry (U.S. ITC Pub. No. 1899, October 16, 1986).

On November 3, 1986, a questionnaire was presented to counsel for Magyar Gordulocsopagy Muvek (MGM), the only known exporter of the subject merchandise from Hungary to the United States. We received MGM's questionnaire response on December 10, 1986. Supplemental responses were received on January 7, 1987, and February 24, 1987.

As discussed under the "Foreign Market Value" section of this notice, we have determined that Hungary is a state-controlled-economy country for the purpose of this investigation.

On February 2, 1987, we made an affirmative preliminary determination (52 FR 3835, February 6, 1987).

On February 25, 1987, petitioner alleged that "critical circumstances" exist with respect to imports of TRBs from Hungary. We conducted verification in Budapest and Diosd, Hungary from March 3 through 6, 1987. On March 27, 1987, we made a negative preliminary determination of "critical circumstances" (52 FR 11301, April 8, 1987). On March 20, 1987, the respondent requested a two-week extension of the final determination.

We granted that request and postponed the due date of the final determination until May 4, 1987 (52 FR 11722, April 10, 1987). A public hearing was held on March 30, 1987. As required by the Act, we afforded interested parties an opportunity to submit written comments to address the issues arising in this investigation.

Scope of Investigation

The products covered by this investigation are tapered roller bearings (TRBs), currently classified under *Tariff Schedules of the United States* (TSUS) item numbers 680.30 and 680.39; flange, take-up cartridge, and hanger units incorporating TRBs currently classified

under TSUS item number 681.10; and tapered roller housing (except pillow blocks) incorporating tapered rollers, with or without spindles, whether or not for automotive use, and currently classified under TSUS item numbers 692.32 or elsewhere in the TSUS.

Fair Value Comparisons

Because MGM accounted for all sales of this merchandise from Hungary, we limited our investigation to that company.

To determine whether sales of the subject merchandise in the United States were made at less than fair value, we compared the United States price with the foreign market value. We investigated sales of TRBs for the period September 1, 1985 through August 31, 1986. We used a twelve-month period of investigation because the respondent had no sales in the original six-month period of investigation.

United States Price

As provided in section 772 of the Act, we used to the purchase price of the subject merchandise to represent the United States price for sales by MGM because the merchandise was sold to unrelated purchasers prior to its importation into the United States.

We calculated the purchase price based on the f.o.b. Hamburg, West Germany port price to unrelated purchasers. We made deductions for foreign inland freight, handling and loading charges, and a cash discount.

In accordance with the policy set forth in our final determination in the investigation of *Carbon Steel Wire Rod from Poland* (49 FR 29434, July 20, 1984), we based the inland freight deductions on charges incurred in a non-state-controlled-economy country, Portugal. Handling and loading were based on the actual charges paid by MGM in freely convertible currency to a West German freight forwarder. The cash discount was based on the actual cash discount given on certain sales or the cost of extraordinary terms of payment on other sales. Since the extraordinary credit terms were converted to a cash discount, we treated the extraordinary credit terms as being equivalent to a cash discount.

Foreign Market Value

Petitioner alleged that Hungary is a state-controlled-economy country and that sales of the subject merchandise in that country do not permit a determination of foreign market value under section 773(a) of the Act. After an analysis of the Hungarian economy, and consideration of the briefs submitted by

the parties, we concluded that Hungary is a state-controlled-economy for purposes of this investigation. Basic to our decision is the degree of direct and indirect central control that the Hungarian government exercises over the prices and levels of production of the TRB industry, as well as the internal pricing of the factors of production.

As a result, section 773(c) of the Act requires us to use prices or the constructed value of such or similar merchandise in a "non-state-controlled-economy" country. The statute further stipulates that, to the extent possible, we should determine sales prices on the basis of prices in a "non-state-controlled-economy" country at a stage of economic development comparable to the country with the state-controlled economy.

We subsequently determined that Argentina, Brazil, Mexico, Portugal and Yugoslavia would be the most appropriate surrogates. South Korea and Spain were selected as alternative surrogates. We sent questionnaires requesting assistance in this investigation to TRB producers in Argentina, Brazil, Mexico, South Korea and Spain. We did not send questionnaires to Portugal because there were no TRB producers in that country. We did not send questionnaires to Yugoslavia because we are currently conducting an antidumping duty investigation on TRBs from that country. Although the Department made numerous efforts to obtain the cooperation of these potential respondents, we received no response from any company to which the Department sent questionnaires.

Following the Department's hierarchy of preferences under § 353.8(a), we analyzed the import prices from the comparable non-state-controlled-economy countries. In this case, we found the applicable Department of Commerce statistics for the subject merchandise were based on categories that were too broad to make specific comparisons. Additionally, U.S. imports from the surrogate countries where there were measurable imports may have benefited from export subsidies, which would make them inappropriate for calculating foreign market value.

Since we were unable to obtain verifiable prices or constructed value data from the potential surrogate companies in comparable economies, we used the factors of production valued in a comparable economy as provided for in § 353.8(c), as the basis for determining foreign market value. We calculated constructed value based on the factors of production reported by the Hungarian producer which accounts

for all of the Hungarian exports to the United States of the subject merchandise.

We used the best information available for valuing the factors of production. Where possible, best information available was obtained from publicly available sources in Portugal or from a surrogate company in the metals processing industry in Portugal. We chose Portugal as the surrogate for purposes of valuation of the factors of production because we were able to obtain more complete publicly available data from that country as opposed to the other surrogate countries. We valued labor, direct factory overhead and raw materials for certain TRB components from information obtained from the surrogate company in Portugal. Other raw material costs were based on the verified costs to the Hungarian producer for imports of certain steel products from market economies. In such instances, the steel was paid for in freely convertible currency. Terms of payment did not encompass countertrade. Commissions charged by the Hungarian importer to MGM as a percentage of the cost of goods, and delivery costs valued using Portuguese freight rates, were added to the cost of the imported steel. Packing was obtained from publicly available data in the public version of the response of a market-economy country TRB producer involved in a current antidumping duty investigation. We used the statutory minimum of 10 percent of the sum of material and production costs for general, sales and administrative expenses and the statutory minimum of eight percent for profit.

When using surrogate country data, we made currency conversions in accordance with § 353.56(a) of our regulations, using certified exchange rates as furnished by the Federal Reserve Bank of New York.

Verification

As provided in section 776(a) of the Act, we verified information provided by the respondent, using standard verification procedures, including examination of accounting records and original source documents containing relevant information on selected sales.

Comments Section

Petitioner's Comments

Comment #1: Petitioner argues that the Department may not use the factors of production constructed value method provided for in § 353.8(c) of the Commerce regulations as the basis for

foreign market value in this investigation.

Petitioner contends that § 353.8 (a) and (b) of the Commerce regulations establishes a hierarchy for determining foreign market value in which prices and constructed value of such or similar merchandise take preference over the factors of production constructed value method under § 353.8(c). The Department must first consider prices and constructed value of such or similar merchandise under § 353.8 (a) and (b) in the following order of preference: (1) A non-state-controlled-economy country at a stage of economic development comparable to the state-controlled-economy country from which the merchandise is exported; (2) a non-state-controlled-economy country not necessarily at a stage of economic development comparable to the state-controlled-economy country, other than the United States, suitably adjusted for known differences in costs of materials and labor; and (3) the United States. According to the petitioner, the Department must exhaust all of these established preferences before resorting to the factors of production approach.

DOC position: We disagree.

Petitioner's hierarchy of methods for calculating foreign market value, under which the factors of production constructed value approach would be a last resort, is based upon a misconception of 19 CFR 353.8 and applicable precedent. The Commerce regulation and past Departmental practice does establish a preference for the use of comparable economy sales prices and constructed value as the basis for foreign market value. However, it is not true, as petitioner claims, that under § 353.8(b) foreign market value based on sales prices or constructed value in a non-state-controlled-economy country not at a comparable stage of economic development are preferable to the factors of production constructed value approach under § 353.8(c).

Section 353.8(b)(1) of the regulations makes clear that the preference in favor of sales prices is tempered by the overriding preference for ascertaining foreign market value by reference to comparable non-state-controlled-economies. *Chemical Products Corp. v. United States*, 12 CIT ———, Slip Op. 86-87 (September 28, 1986). The Department would arrive at § 353.8(b)(2) only after it has exhausted the pricing and constructed value options in comparable economies, i.e., under § 353.8 (a) and (c).

In this case, verifiable and otherwise acceptable surrogate sales price and constructed value information was not

available from TRB producers in any of the non-state-controlled-economy countries determined by the Department to be at stages of economic development comparable to that of Hungary. The Department sent surrogate questionnaires to seven firms in these countries. None of these firms was willing to provide the information sought in the questionnaire (See DOC response to petitioner's comment #2 for the Department's position with respect to price and constructed value data provided by the petitioner). (See DOC response to petitioner's comment #3 for the Department's handling of prices obtained from U.S. import statistics). However, the Department was able to obtain and verify the respondent's factors of production information and value such information in a comparable economy. Therefore, factors of production constructed value methodology has been used for purposes of determining foreign market value with respect to the final determination in this investigation.

Comment #2: Petitioner argues that, since the Department was unable to obtain verifiable prices and constructed value information from the TRB producers in comparable surrogates to whom it sent questionnaires, the Department must use the surrogate country price and constructed value information provided by the petitioner. The petitioner has supplied the Department with price lists for almost all the TRB part numbers exported by the respondent from almost all of the surrogate countries chosen by the Department. In addition, petitioner's subsidiary in a surrogate country has voluntarily responded to the Department's questionnaire, furnishing data on both its home market sales and its cost of production.

DOC position: In selecting potential surrogate respondents, the Department initially identified five (later increased to seven) comparable (surrogate) economies. The Department requested and received assistance from both the petitioner and respondent in identifying TRB producers in those seven surrogate countries. Ultimately, the Department identified fourteen TRB producers and sent seven TRB producers in five surrogate countries questionnaires requesting pricing, constructed value and valuation of factors of production information. No questionnaires were sent to the other seven TRB producers because they were either: (1) Located in a country subject to a current antidumping investigation; (2) identified as being related to a company subject to a current antidumping investigation on

TRBs; or (3) identified as being related to the petitioner in this proceeding.

The Department used these criteria for eliminating TRB producers after determining that the relationship of TRB producers to the petitioner or other parties subject to an antidumping proceeding might raise questions as to the propriety of the information submitted. Furthermore, the Department determined that it had an adequate number of TRB producers to whom to send questionnaires.

The petitioner was aware of the Department's selection of surrogate producers and did not submit objections to the Department's rejection of potential surrogate respondents at the time the questionnaires were sent out. The petitioner first raised objections to the Department's surrogate selections after the preliminary determination.

Additionally, with the possible exception of the voluntary response of the petitioner's subsidiary in a surrogate country which "volunteered" to be verified, none of the price list data submitted by the petitioner is verifiable. It is not our practice to use price lists for comparison purposes, nor do we have sufficient verifiable information to allow us to make the necessary adjustments to these prices. With regard to the petitioner's subsidiary's response, we note that the response was not received until one month after the Department's preliminary determination. It has been the Department's position that in order to even be considered in a final determination, a complete and full voluntary response must be received by the date of the preliminary determination.

Comment #3: Petitioner contends that under § 353.8(a), the Department must consider U.S. import statistics for TRBs from the selected surrogate countries before considering use of factors of production. Such import statistics have been used in prior non-market-economy investigations, where the Department has been unable to obtain surrogate country producer prices, as being representative of third country prices from the surrogate country.

DOC position: We disagree that the use of import statistics is appropriate in this investigation. Although the subject TSUS numbers do cover complete sets of TRBs, as well as TRB cups and cones, these tariff categories cover a great range of dimensions. Additionally, imports from the surrogate countries, where there were measurable imports, benefited from export subsidies, which makes them inappropriate for foreign market value calculations.

Comment #4: Petitioner questions the Department's decision to request factors of production data from the MGM Diosd TRB production plant and not two other MGM plants. Under the Department's consistent practice, MGM should provide the factors of production for all plants producing TRBs, regardless of whether the bearings produced are for export or not, and whether production is primarily of inch- or metric-denominated bearings, or large- or small-dimensional bearings. Since this data was not submitted, the Department is deprived of information necessary for determining foreign market value based on factors of production and must instead rely on the best information otherwise available.

DOC position: Although the Department did initially request factors of production data from MGM for all three plants, subsequent submissions by MGM led the Department to revise that request to cover the Diosd factory only. The Department's past practice in determining which factories in a non-market-economy investigation would be required to submit factors of production data has been to first gather information (which would be subject to verification) on each factory's production capacity, production processes, products produced, volume of domestic and export sales and age of the factory. Based on this data, the Department would decide which plant or plants would be required to submit the factors of production information.

In this investigation, the Department made the decision to limit the reporting of factors to the Diosd plant based on the data submitted which indicated that the Diosd plant accounted for all of the production and sales of the size and type of TRBs exported to the United States from Hungary. The subsequent verification established to the Department's satisfaction that this representation was correct. In the one instance where a second plant produced a TRB component used in the assembly of the subject TRBs in the Diosd plant, the factors of production for this component were obtained during verification. Accordingly, foreign market value has been based on the factors of production as verified.

Comment #5: Petitioner argues that the Department is precluded from using the factors of production constructed value method because § 353.8(c) provides that it should be used where "such or similar merchandise is not produced" in a comparable market-economy country, and in this case such or similar merchandise is produced in such countries.

DOC position: We disagree. None of the seven producers in surrogate countries to which we sent questionnaires were willing to provide the Department with the price and constructed value information which we sought. We consider the absence of surrogate producer responses tantamount to a situation in which such or similar merchandise is not produced in a comparable market-economy country. See, *Barium Carbonate from the People's Republic of China* (49 FR 33913, 1984).

Comment #6: As noted in the Department's verification report, MGM incurs containerization charges in the West German port. Since these are part of MGM's movement charges and are incurred in a non-state-controlled-economy country, the actual charges should be deducted from the U.S. price.

DOC position: We agree. The actual charges incurred by MGM on each shipment have been deducted from the U.S. price.

Comment #7: In calculating foreign market value. The Department should adjust the foreign prices to account for differences in the circumstances of sale between sales in the United States and sales in the foreign market for expenses for credit, warranties, commission, technical services, and advertising. To adjust for differences in circumstances of sales, the Department should deduct from foreign market value the cost of these expenses in the home market of the surrogate country, and then add to foreign market value the cost of these expenses on sales by the producer under investigation to the United States. See, e.g., *Potassium Chloride from the Union of Soviet Socialist Republics*. (50 FR 4562, 4563, 1985).

These adjustments should be based on the experience of the petitioner's TRB subsidiary in Brazil.

DOC position: We disagree. In this investigation the Department has valued factors of production in a comparable surrogate country using the best information available. The specificity of the data obtained for valuing the factors is not sufficient for us to identify the directly related selling expense adjustments which would have to be made to foreign market value for both U.S. price and constructed value. Absent specific information that the respondent incurs extraordinary directly related selling expenses for U.S. sales, the Department assumed, as best information available, that ordinary and similar selling expenses occur in both markets and, as such, offset one another.

For reasons stated in the "DOC Position" to petitioner's comment #2, we

have not considered the data submitted by the petitioner for its subsidiary in Brazil.

Comment #8: Petitioner contends that the Department's preliminary determination methodology for calculating direct factory overhead seriously understated the factory overhead element of the constructed value by omitting various cost categories. Petitioner contends that in valuing the factory overhead in an appropriate surrogate the Department should independently value such cost categories as energy utilization, tools, lubricants, work clothes, maintenance materials, machines, equipment and buildings, natural gas, depreciation, contracted repair, and other factory overhead. The factory overhead experience of the petitioner's subsidiary in Brazil, a surrogate country chosen by the Department, as well as that of the petitioner itself and several Japanese producers, is indicative of an appropriate factory overhead rate which is inclusive of these cost categories.

DOC position: We disagree with the petitioner's requirement that all elements of factory overhead be individually valued. The Department has obtained, and used as the best information available, a factory overhead rate from a surrogate company in the metal processing industry in Portugal. This overhead rate is expressed as a percentage of cost of goods sold and as such is inclusive of all elements of factory overhead.

With regard to petitioner's request that we use the average factory overhead experience of Japan and the United States as being representative of the Hungarian industry, the Department considers the factory overhead experience of a surrogate company in a comparable-economy country (notwithstanding the fact that the company is not involved in the production of TRBs) preferable to the alternatives offered by the petitioner.

We are required to select a comparable economy in which to value the factors of production information. The rationale behind selecting a comparable economy is that the experience of a producer in a comparable-economy country is reflective of the same degree of economic and industrial development as that of a producer in a non-market-economy country. The United States and Japanese overhead ratios offered by the petitioner, on the other hand, are for fully industrialized economies whose TRB producers use highly automated, state-of-the-art production equipment, in which factory overhead is high and direct labor low. The Hungarian

production facilities use less automated and less sophisticated machinery and are much more labor intensive. In such instances, direct factory overhead would be lower and direct labor higher than for U.S. and Japanese TRB producers.

For reasons stated in the "DOC Position" section to petitioner's comment #2, we have not considered the data submitted by the respondent for its subsidiary in Brazil.

Comment #9: Petitioner asserts that if the Department persists in using factors of production, constructed value should be based upon costs and expenses incurred in Brazil in the production of bearings, not those incurred generally in Portugal. Petitioner states that the Department is prohibited by statute from using Portugal, a country which has no TRB industry, as a surrogate for valuing the factors of production. The applicable statute provides for the Department's use of constructed value only with respect to "such or similar merchandise" in a non-state-controlled-economy country.

DOC position: We disagree. In cases involving state-controlled-economy countries, we devise our list of potential surrogates on the basis of the comparability of their economies to that of the state-controlled-economy country under investigation, not on the presence or absence of an industry within that potential surrogate producing such or similar merchandise to that which is subject to the investigation. The Department valued the factors of production data in Portugal because it was the comparable surrogate country from which the most complete data was available. The Department did not use the constructed value information provided by the petitioner for its subsidiary in Brazil for reasons stated in the Department's response to petitioner's comment #2.

Comment #10: Petitioner maintains that, for purposes of valuing factors of production, using the prices that Hungary (MGM) pays the United Kingdom, Sweden and the Federal Republic of Germany for various steel inputs is not permissible under the Statute.

Section 773(c) states that in the case of a state-controlled-economy country, the administering authority shall determine the foreign market value on the basis of prices in a non-state-controlled economy (or prices from that country to a third country). 19 U.S.C. 1677b(c) (emphasis added). The statute does not provide discretion to choose some of the input costs actually incurred in a state-controlled economy and other

costs incurred in a surrogate country and to mix the two values in arriving at constructed value.

DOC Position: We disagree. We used the prices paid by the Hungarian importer for grades and dimensions of steel used in the production of certain components of the TRBs as best information available because we did not have such specific information in Portugal, our surrogate country. These prices were not set in the state-controlled-economy country but rather in the non-state-controlled-economy countries of Western Europe. An extensive verification of this data showed that the prices and terms were freely negotiated in Western European market economies and that payment was made by the Hungarian importer to Western European steel producers in freely convertible currency. The Hungarian importer, who acted as a purchasing agent for MGM, charged MGM a commission for its services. Accordingly, the import price used in valuing the appropriate factors of production was increased by the amount of the commission charged.

Comment # 11: Petitioner advocates the use of actual West German freight rates as the basis for calculating foreign inland freight expense. Petitioner further contends that the Department's use of surrogate rates (Portuguese freight rates) is unnecessary for purposes of the final determination due to the availability of a free-market rate for inland freight in West Germany.

DOC Position: We disagree. The intent of using a surrogate country's information is to allow for a comparison between the state-controlled-economy country under investigation and the non-state-controlled-economy country to which its economy is most comparable. Therefore, inland freight rates in Portugal are preferable to those of West Germany for purposes of establishing a value for Hungarian inland freight rates.

Respondent's Comments

Comment #1: Respondent contends that constructed value (based upon factors of production) is the most appropriate methodology for calculating foreign market value in this investigation. Respondent also believes that Portugal is the most appropriate surrogate country.

DOC position: For reasons set forth in "DOC Position" section of the petitioner's comment #1, we agree.

Comment #2: Respondent feels that, in calculating a constructed foreign market value, the amount added for factory overhead should be based on experience in the surrogate market-economy country, in this case Portugal.

DOC position: We agree. The Department developed, for purposes of its final determination, an amount for overhead based on best information available which was the experience in Portugal of a company in the metals processing industry. We added this amount for overhead to the direct costs of production for purposes of determining foreign market value.

Comment #3: Respondent questions the Department's basing MGM's packing costs on information supplied in the investigation involving TRBs from Italy. Two reasons cited are: One, Italy is not at a stage of economic development comparable to that of Hungary and, therefore, was not chosen by the Department as a possible surrogate in this investigation; two, respondent fears that double-counting of such items as containerization and packing labor will occur.

DOC position: Since we were not able to obtain the information necessary to value packing data in a surrogate country, we have used as best information available the packing cost information in the public response of an Italian TRB producer. Since the cost of containerization in Hungary was included in the freight forwarder costs, containerization costs have been deducted from the Italian packing costs. Packing labor has been excluded from the direct labor input.

Comment #4: Respondent argues that the Department should not use the pricing data supplied by the petitioner because the data is unverified, is unsolicited, and is supplied by a company related to or controlled by an interested party to this investigation.

DOC Position: For reasons set forth in the "DOC Position" section of petitioner's comment #2, we have not used the information supplied by the petitioner.

Comment #5: Respondent maintains that the factors of production information it provided for the Diosd factory is a sufficient basis for an accurate and complete constructed value calculation.

DOC Position: For reasons set forth in the "DOC Position" section of petitioner's comment #4, we agree.

Comment #6: Respondent holds that the Department's use (for purposes of the preliminary determination) of the convertible currency prices actually paid for steel inputs from West European supplier was correct and will yield the most accurate foreign market value for purposes of the final determination.

DOC position: For reasons set forth in the "DOC Position" section of petitioner's comment #10, we agree.

Comment #7: Respondent supports the Department's method of valuing inland freight based on rates in the surrogate country (Portugal). Respondent believes that this approach should be used for the final determination.

DOC position: For reasons established in the "DOC Position" section of petitioner's comment #11, we agree and have used inland freight data valued in Portugal for purposes of our final determination.

Interested Party Comments

Comments #1: Marsuda-Rodgers (an importer of TRBs from Hungary) contends that, although some Hungarian and domestically-produced TRBs may share identical identification numbers, they are not necessarily interchangeable. Marsuda-Rodgers points out that domestically-produced TRBs are case-carburized as opposed to Hungarian-produced TRBs, which are through-hardened. Marsuda-Rodgers asserts that case-carburized TRBs (produced domestically, not in Hungary), because of their inherent capacity to withstand high pressure usage, can command a higher price in the market and, therefore, cannot reasonably be compared to Hungarian TRBs, which are not as well-suited for high-pressure situations.

Therefore, if the Department uses price-to-price comparisons for purposes of its final determination, and uses case-carburized TRBs produced in a surrogate country as a basis for foreign market value, it should devise a method for making adjustments for differences in the subject merchandise.

DOC position: As we are not basing our final determination upon price-to-price comparisons, but rather on constructed value based upon factors of production, this issue need not be addressed for purposes of our final determination.

Negative Determination of Critical Circumstances

On February 25, 1987, counsel for petitioner alleged that imports of TRBs from Hungary present "critical circumstances." In determining whether critical circumstances exist, section 735(a)(3) of the Act requires that we examine whether:

- (A)(i) there is a history of dumping in the United States or elsewhere of the class or kind of merchandise which is the subject of the investigation; or
- (ii) the person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the merchandise which is the subject

of the investigation at less than fair value; and

(B) there have been massive imports of the class or kind of merchandise which is the subject of the investigation over a relatively short period.

Pursuant to section 735(e)(1)(A), we reviewed past antidumping findings of the Department of Treasury as well as past Department of Commerce antidumping orders to determine whether there is a history of dumping of TRBs from Hungary in the United States or elsewhere. There have been no past United States antidumping determinations on TRBs from Hungary. We also reviewed the antidumping actions of other countries made available to us through the Antidumping Code Committee established by the General Agreement on Tariffs and Trade. We found no history of this product being dumped from Hungary.

We then considered whether the persons by whom, or for whose account, this product was imported knew or should have known that it was being sold at less than fair value. We have no evidence that the importers had such knowledge. Nor is the weighted-average margin found in our final determination (7.42 percent) sufficiently large in and of itself for us to assume that the importers should have known that the product was being sold at less than fair value.

Accordingly, having failed the first prong of the test, there is no need to consider whether the second prong, massive imports, under section 735 (e)(1)(B) of the Act applies.

For reasons described above, we have determined that "critical circumstances" do not exist with respect to TRBs from Hungary.

Continuation of Suspension of Liquidation

In accordance with section 735(d) of the Act, we are directing the United States Customs Service to continue to suspend liquidation of all entries of TRBs from Hungary that are entered or withdrawn from warehouse, for consumption, or or after the date of publication of this notice in the *Federal Register*. The Customs Service shall require a cash deposit or the posting of a bond on all such entries equal to the estimated weighted-average amount by which the foreign market value of the merchandise subject to this investigation exceeds the United States price, which is 7.42 percent of the ex-factory value. This suspension of liquidation will remain in effect until further notice.

ITC Notification

In accordance with section 735(d) of the Act, we have notified the ITC of our determination. In addition, we are making available to the ITC all nonprivileged and nonconfidential information relating to this investigation. We will allow the ITC access to all privileged and business proprietary information in our files, provided the ITC confirms that it will not disclose such information, either publicly or under an administrative protective order, without the written consent of the Deputy Assistant Secretary for Import Administration. The ITC will make its determination whether these imports materially injure, or threaten material injury to, a U.S. industry within 45 days of the date of this determination. If the ITC determines that material injury, or threat of material injury, does not exist, this proceeding will be terminated and all securities posted as a result of the suspension of liquidation will be refunded or cancelled.

However, if the ITC determines that such injury does exist, we will issue an antidumping duty order directing Customs Officers to assess an antidumping duty on TRBs from Hungary entered, or withdrawn from warehouse, for consumption on or after the date of suspension of liquidation, equal to the amount by which the foreign market value of the merchandise exceeds the United States price.

This determination is published pursuant to section 735(d) of the Act (19 U.S.C. 1673d(d)).

Paul Freedenberg,
Assistant Secretary for Trade Administration.
May 4, 1987.

[FR Doc. 87-10533 Filed 5-7-87; 8:45 am]

BILLING CODE 3510-DS-M

[A-485-602]

Final Determination of Sales at Less Than Fair Value; Tapered Roller Bearings and Parts Thereof, Finished or Unfinished, From the Socialist Republic of Romania

AGENCY: Import Administration, International Trade Administration, Commerce.

ACTION: Notice.

SUMMARY: We have determined that tapered roller bearings and parts thereof, finished or unfinished (tapered roller bearings), from the Socialist Republic of Romania (Romania) are being, or are likely to be, sold in the United States at less than fair value. We have also determined that critical

circumstances do exist in this investigation. We have notified the U.S. International Trade Commission (ITC) of our determination, and we have directed the U.S. Customs Service to continue to suspend the liquidation of all entries of the subject merchandise that are entered, or withdrawn from warehouse, for consumption on or after the date of publication of this notice, and to require a cash deposit or bond for each such entry in an amount equal to the estimated dumping margin as described in the "Continuation of Suspension of Liquidation" section of this notice.

EFFECTIVE DATE: May 8, 1987.

FOR FURTHER INFORMATION CONTACT: Mary Jenkins (202/377-1756) or John R. Brinkmann (202/377-3965), Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230.

SUPPLEMENTARY INFORMATION:

Final Determination

We have determined that tapered roller bearings from Romania are being, or are likely to be, sold in the United States at less than fair value, as provided in section 735 of the Tariff Act of 1930, as amended (the Act) (19 U.S.C. 1673d(a)). The weighted-average margin of sales at less than fair value is 8.70 percent.

Case History

On August 25, 1986, we received a petition in proper form filed by the Timken Company, on behalf of the U.S. industry producing tapered roller bearings. In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from Romania 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 Act, and that these imports are causing material injury, or threaten material injury, to a United States industry.

After reviewing the petition, we determined that it contained sufficient grounds upon which to initiate an antidumping duty investigation. We initiated such an investigation on September 15, 1986 (51 FR 33287, September 19, 1986) and notified the ITC of our action.

On October 2, 1986, the ITC determined that there is a reasonable indication that imports of tapered roller bearings from Romania are materially

injuring a United States industry (U.S. ITC Pub. No. 1899, October 16, 1986).

On November 3, 1986, a questionnaire was presented to the Embassy of Romania. On December 22, 1986, we received a response from Tehnoimportexport, the only known exporter of the subject merchandise from Romania to the United States. Supplemental responses were received on January 20, 1987, and February 23, 1987.

As discussed under the "Foreign Market Value" section of this notice, we have determined that Romania is a state-controlled-economy country for the purpose of this investigation.

On February 2, 1987, we made an affirmative preliminary determination (52 FR 3838, February 6, 1987).

On February 25, 1987, petitioner alleged that "critical circumstances" exist with respect to imports of tapered roller bearings from Romania. We conducted verification in Bucharest and Brasov, Romania, March 9 through March 13, 1987. A hearing we held on March 26, 1987. On March 27, 1987, we made a preliminary affirmative determination of "critical circumstances" (52 FR 11303, April 8, 1987). On March 30, 1987, respondent requested a two-week extension of the final determination. We granted that request and postponed the final determination until May 4, 1987 (52 FR 11722, April 10, 1987).

As required by the Act, we afforded interested parties an opportunity to submit written comments to address the issues arising in this investigation.

Scope of Investigation

The products covered by this investigation are tapered roller bearings (TRBs), currently classified under *Tariff Schedules of the United States* (TSUS) item numbers 680.30 and 680.39; flange, take-up cartridge, and hanger units incorporating tapered roller bearings currently classified under TSUS item number 681.10; and tapered roller housings (except pillow blocks) incorporating tapered rollers, with or without spindles, whether or not for automotive use, and currently classified under TSUS item numbers 692.32 or elsewhere in the TSUS.

Fair Value Comparisons

Because Tehnoimportexport accounted for all sales of this merchandise from Romania, we limited our investigation to that company.

To determine whether sales of the subject merchandise in the United States were made at less than fair value, we compared the United States price with the foreign market value. We

investigated sales of TRBs for the period September 1, 1985, through August 31, 1986. We used a twelve-month period of investigation because the respondent had insufficient sales in the original six-month period of investigation.

United States Price

As provided in section 772 of the Act, we used the purchase price of the subject merchandise to represent the United States price for sales by Tehnoimportexport because the merchandise was sold to unrelated purchasers prior to its importation into the United States.

We calculated the purchase price based on the f.o.b. Romanian port price to unrelated purchasers. We made deductions for foreign inland freight, and handling and loading charges.

In accordance with the policy set forth in our final determination in the investigation of *Carbon Steel Wire Rod from Poland* (49 FR 29434, July 20, 1984), we based the inland freight deduction on similar charges incurred in a non-state-controlled-economy country, Portugal. Handling and loading were based on best information available, which was the publicly available actual handling and loading charges paid by a Hungarian exporter for TRB exports to the United States.

Foreign Market Value

Petitioner alleged that Romania is a state-controlled-economy country and that sales of the subject merchandise in that country do not permit a determination of foreign market value under section 773(a) of the Act. After an analysis of the Romanian economy, and consideration of the briefs submitted by the parties, we concluded that Romania is a state-controlled-economy country for purposes of this investigation. Basic to our decision on this issue is the fact that the central government of Romania controls the prices and levels of production of the TRB industry, as well as the internal pricing of the factors of production.

As a result, section 773(c) of the Act requires us to use prices or the constructed value of such or similar merchandise in a "non-state-controlled-economy" country. The statute stipulates that, to the extent possible, we should use sales prices or constructed value in a "non-state-controlled-economy" country at a stage of economic development comparable to the country with the state-controlled economy.

We subsequently determined that Argentina, Brazil, Mexico, Portugal and Yugoslavia would be the most appropriate surrogates. South Korea and

Spain were selected as alternative surrogates. We sent questionnaires requesting assistance in this investigation to producers of TRBs in Argentina, Brazil, Mexico, South Korea and Spain. We did not send questionnaires to Portugal because there were no TRB producers in that country. We did not send questionnaires to Yugoslavia because we are currently conducting an antidumping duty investigation on TRBs from the country. Although the Department made numerous efforts to attain the cooperation of these potential surrogate respondents, we received no response from any company to which the Department sent questionnaires.

Following the Department's hierarchy of preferences under § 353.8(a), we analyzed the import prices from the comparable non-state-controlled-economy countries. In this case, we found the applicable Department of Commerce statistics for the subject merchandise were based on categories that were too broad to make specific comparisons. Additionally, U.S. imports from the surrogate countries where there were measurable imports may have benefited from export subsidies, which would make them inappropriate for foreign market value calculations.

Since we were unable to obtain verifiable prices or constructed value data from the potential surrogate companies in comparable economies, we used the factors of production valued in a comparable economy, as provided for in § 353.8(c), as the basis of foreign market value. We calculated constructed value based on the factors of production reported by Tehnoimportexport on behalf of the Romanian producers which account for 100 percent of the exports to the United States of the subject merchandise.

We used the best information available for valuing the factors of production. Where possible, best information available was obtained from publicly available sources in Portugal or from a surrogate company in the metals processing industry in Portugal. We chose Portugal as the surrogate for purposes of valuation of the factors of production because we were able to obtain more complete publicly available data from that country as opposed to the other surrogate countries. We valued direct factory overhead and raw materials for certain TRB components from information obtained from the surrogate company in Portugal. Other raw material costs for Romania factors of production were based on the average prices obtained from publicly available

import prices paid by a Hungarian producer of TRBs for imports of certain steel products from market economies; or the average invoice price charged by the petitioner in the United States for certain grades and sizes of steel. Labor value was based on average fully loaded labor rates provided by the American Embassy in Portugal. This rate was corroborated by labor rates obtained from the Bureau of Labor statistics for the Portugal metals processing industry. Packing was obtained from data in the public version of the response of a market-economy-country TRB producer involved in a current antidumping duty investigation. We used the statutory minimum of 10 percent of the sum of material and production costs for general, sales and administrative expenses and the statutory minimum of eight percent for profit.

When using surrogate country data, we made currency conversions in accordance with § 353.56(a)(1) of our regulations, using certified exchange rates as furnished by the Federal Reserve Bank of New York.

Verification

As provided in section 776(a) of the Act, we verified information provided by the respondent, using standard verification procedures, including examination of accounting records and original source documents containing relevant information on selected sales.

Comments Section

Petitioner's Comments

Comment #1: Petitioner argues that the Department may not use the factors of production constructed value method provided for in § 353.8(c) of the Commerce regulations as the basis for foreign market value in this investigation.

Petitioner contends that § 353.8 (a) and (b) of the Commerce regulations establishes a hierarchy for determining foreign market value in which prices and constructed value of such or similar merchandise take preference over the factors of production constructed value method under § 353.8(c). The Department must first consider prices and constructed value of such or similar merchandise under § 353.8 (a) and (b) in the following order of preference: (1) A non-state-controlled-economy country at a stage of economic development comparable to the state-controlled-economy country from which the merchandise is exported; (2) a non-state-controlled-economy country not necessarily at a stage of economic development comparable to the state-

controlled-economy country, other than the United States, suitably adjusted for known differences in costs of materials and labor; and (3) the United States. According to the petitioner, the Department must exhaust all of these established preferences before resorting to the factors of production approach.

DOC position: We disagree. Petitioner's hierarchy of methods for calculating foreign market value, under which the factors of production constructed value approach would be a last resort, is based upon a misconception of 18 CFR 353.8 and applicable precedent. The Commerce regulation and past Departmental practice does establish a preference for the use of comparable economy sales prices and constructed value as the basis for foreign market value. However, it is not true, as petitioner claims, that under § 353.8(b) foreign market value based on sales prices or constructed value in a non-state-controlled-economy country not at a comparable stage of economic development are preferable to the factors of production constructed value approach under § 353.8(c).

Section 353.8(b)(1) of the regulations makes clear that the preference in favor of sales prices is tempered by the overriding preference for ascertaining foreign market value by reference to comparable non-state-controlled economies. *Chemical Products Corp. v. United States*, 12 CIT ____, Slip Op. 86-97 (September 28, 1986). The Department would arrive at § 353.8(b)(2) only after it has exhausted the pricing and constructed value options in comparable economies, i.e., under § 353.8 (a) and (c).

In this case, verifiable and otherwise acceptable surrogate sales price and constructed value information was not available from TRB producers in any of the non-state-controlled-economy countries determined by the Department to be at stages of economic development comparable to that of Romania. The Department sent surrogate questionnaires to seven firms in these countries. None of these firms were willing to provide the information sought in the questionnaire (See DOC response to petitioner's comment #2 for the Department's position with respect to price and constructed value data provided by the petitioner). (See DOC response to petitioner's comment #3 for the Department's handling of prices obtained from U.S. import statistics.) However, the Department was able to obtain and verify the respondent's factors of production information and value such information in a comparable economy. Therefore, factors of production constructed value methodology has been used for purposes

of determining foreign market value with respect to the final determination in this investigation.

Comment #2: Petitioner argues that, since the Department was unable to obtain verifiable prices and constructed value information from the TRB producers in comparable surrogates to whom it sent questionnaires, the Department must use the surrogate country price and constructed value information provided by the petitioner. The petitioner has supplied the Department with price lists for almost all the TRB part numbers exported by the respondent from almost all of the surrogate countries chosen by the Department. In addition, petitioner's subsidiary in a surrogate country has voluntarily responded to the Department's questionnaire, furnishing verifiable data on both its home market sales and its cost of production.

DOC position: In selecting potential surrogate respondents, the Department initially identified five (later increased to seven) comparable (surrogate) economies. The Department requested and received assistance from both the petitioner and respondent in identifying TRB producers in those seven surrogate countries. Ultimately, the Department identified fourteen TRB producers and sent seven TRB producers in five surrogate countries questionnaires requesting pricing, constructed value and valuation of factors of production information. No questionnaires were sent to the other seven TRB producers because they were either: (1) Located in a country subject to a current antidumping investigation; (2) identified as being related to a company subject to a current antidumping investigation on TRBs; or (3) identified as being related to the petitioner in this proceeding.

The Department used these criteria for eliminating TRB producers after determining that the relationship of TRB producers to the petitioner or other parties subject to an antidumping proceeding might raise questions as to the propriety of the information submitted. Furthermore, the Department determined that it had an adequate number of TRB producers to whom to send questionnaires.

The petitioner was aware of the Department's selection of surrogate producers and did not submit objections to the Department's rejection of potential surrogate respondents at the time the questionnaires were sent out. The petitioner first raised objections to the Department's surrogate selections after the preliminary determination.

Additionally, with the possible exception of the voluntary response of

the petitioner's subsidiary in a surrogate country which "volunteered" to be verified, none of the price list data submitted by the petitioner is verifiable. It is not our practice to use price lists for comparison purposes, nor do we have sufficient verifiable information to allow us to make the necessary adjustments to these prices. With regard to the petitioner's subsidiary's response, we note that the response was not received until one month after the Department's preliminary determination. It has been the Department's position that, in order to be considered in a final determination, a complete and full voluntary response must be received by the date of the preliminary determination.

Comment #3: Petitioner contends that under § 353.8(a), the Department must consider U.S. import statistics for TRBs from the selected surrogate countries before considering use of factors of production. Such imports statistics have been used in prior non-market-economy investigations where the Department has been unable to obtain surrogate country producer prices, as being representative of third country prices from the surrogate country.

DOC position: We disagree that the use of import statistics is appropriate in this investigation. Although the subject TSUS numbers do cover complete sets of TRBs, as well as TRB cups and cones, these tariff categories cover a great range of dimensions. Additionally, imports from the surrogate countries, where there were measurable imports, benefited from export subsidies, which makes them inappropriate for foreign market value calculations.

Comment #4: Petitioner contends that factors of production, to the extent they are based on the Romanian response, should include the weighted average cost components from both the Brasov and Alexandria plants, which export TRBs to the United States, as well as the two other plants which do not export TRBs to the United States. Petitioner claims that it is not consistent with Department precedent to limit the average only to TRB production facilities producing for export to the United States.

DOC position: Although the Department did initially request factors of production data from Tehnoimportexport for all plants, subsequent submissions by Tehnoimportexport led the Department to revise that request to cover the Brasov and Alexandria factories only. The Department's past practice in determining which factories in a non-market-economy investigation would be required to submit factors of production

data has been to first gather information (which would be subject to verification) on each factory's production capacity, production processes, products produced, volume of domestic and export sales and age of the factory. Based on this data, the Department would decide which plant or plants would be required to submit the factors of production information.

In this investigation, the Department made the decision to limit the reporting of factors to these two plants based on the data submitted which indicated that these plants accounted for 100 percent of sales of the size the type of TRBs exported to the United States from Romania. The subsequent verification established to the Department's satisfaction that this representation was correct. Accordingly, where both plants produced the same TRB, we have weight averaged the factors of production in calculating foreign market value.

Comment #5: Petitioner argues that the Department is precluded from using the factors of production constructed value method because § 353.8(c) provides that it should be used where "such or similar merchandise is not produced" in a comparable market-economy country, and in this case such or similar merchandise is produced in such countries.

DOC position: We disagree. None of the seven producers in surrogate countries to which we sent questionnaires were willing to provide the Department with the price and constructed value information which we sought. We consider the absence of surrogate producer responses tantamount to a situation in which such or similar merchandise is not produced in a comparable market-economy country. See, *Barium Carbonate from the People's Republic of China*, 49 FR 33913 (1984).

Comment #6: Petitioner asserts that if the Department persists in using factors of production, constructed value should be based upon costs and expenses incurred in Brazil in the production of bearings, not those incurred generally in Portugal. Petitioner states that the Department is prohibited by statute from using Portugal, a country which has no TRB industry, as a surrogate for valuing the factors of production. The applicable statute provides for the Department's use of constructed value only with respect to "such or similar merchandise" in a non-state-controlled-economy country.

DOC position: We disagree. In cases involving state-controlled-economy countries, we devise our list of potential surrogates on the basis of the comparability of their economies to that

of the state-controlled-economy country under investigation, not on the presence or absence of an industry within that potential surrogate producing such or similar merchandise to that which is subject to the investigation. The Department valued the factors of production data in Portugal because it was the comparable surrogate country from which the most complete data was available. The Department did not use the constructed value information provided by the petitioner for its subsidiary in Brazil for reasons stated in the Department's response to petitioner's comment #2.

Comment #7: Petitioner contends that the Department's preliminary determination methodology for calculating direct factory overhead seriously understated the factory overhead element of the constructed value by omitting various cost categories. Petitioner contends that in valuing the factory overhead in an appropriate surrogate the Department should independently value such cost categories as energy utilization, tools, lubricants, work clothes, maintenance materials, machines, equipment and buildings, natural gas, depreciation, contracted repair, and other factory overhead. The factory overhead experience of the petitioner's subsidiary in Brazil, a surrogate country chosen by the Department, as well as that of the petitioner itself and several Japanese producers, is indicative of an appropriate factory overhead rate which is inclusive of these cost categories.

DOC position: We disagree with the petitioner's requirement that all elements of factory overhead be individually valued. The Department has obtained, and used as the best information available, a factory overhead rate from a surrogate company in the metal processing industry in Portugal. This overhead rate is expressed as a percentage of cost of goods sold and as such is inclusive of all elements of factory overhead.

With regard to petitioner's request that we use the average factory overhead experience of Japan and the United States as being representative of the Romanian industry, the Department considers the factory overhead experience of a surrogate company in a comparable-economy country (notwithstanding the fact that the company is not involved in the production of TRBs) preferable to the alternatives offered by the petitioner.

We are required to select a comparable economy in which to value the factors of production information. The rationale behind selecting a

comparable economy is that the experience of a producer in a comparable-economy country is reflective of the same degree of economic and industrial development as that of a producer in a non-market-economy country. The United States and Japanese overhead ratios offered by the petitioner, on the other hand, are for fully industrialized economies whose TRB producers use highly automated, state-of-the-art production equipment, in which factory overhead is high and direct labor low. The Romanian production facilities use less automated and less sophisticated machinery and are much more labor intensive. In such instances, direct factory overhead would be lower and direct labor higher than for U.S. and Japanese TRB producers.

For reasons stated in the "DOC Position" section to petitioner's comment #2, we have not considered the data submitted by the respondent for its subsidiary in Brazil.

Comment #8: In calculating foreign market value, the Department should adjust the foreign prices to account for differences in the circumstances of sale between sales in the United States and sales in the foreign market for expenses for credit, warranties, commissions, technical services, and advertising. To adjust for differences in circumstances of sales, the Department should deduct from foreign market value the cost of these expenses in the home market of the surrogate country, and then add to foreign market value the cost of these expenses on sales by the producer under investigation to the United States. See, e.g., *Potassium Chloride from the Union of Soviet Socialist Republics* (59 FR 4562, 4563, 1985).

These adjustments should be based on the experience of the petitioner's TRB subsidiary in Brazil.

DOC position: We disagree. In this investigation the Department has valued factors of production in a comparable surrogate country using the best information available. The specificity of the data obtained for valuing the factors is not sufficient enough for us to identify the directly related selling expense adjustments which would have to be made to foreign market value for both U.S. price and constructed value. Absent specific information that the respondent incurs extraordinary directly related selling expenses for its U.S. sales, the Department assumed, as best information available, that ordinary and similar selling expenses occur in both markets and, as such, offset one another.

For reasons stated in the "DOC Position" to petitioner's comment #2, we

have not considered the data submitted by the petitioner for its subsidiary in Brazil.

Respondent's Comments

Comment #1: If the Department makes price-to-price comparisons between Romanian TRBs and those of other TRB producers, it must make an adjustment for physical differences in merchandise.

DOC position: As the Department is not basing its final determination upon price-to-price comparisons, but rather on constructed value based upon factors of production, this issue is moot.

We note, however, that in valuing the factors of production, the Department did take into account the various grades of steel used by the Romanian TRB producers. In this regard, the physical differences in merchandise are accounted for in the constructed value calculation.

Comment #2: Respondent contends that, since Romanian steel inputs are sourced domestically, expenses such as freight, insurance and import duties and taxes are not incurred, and the inclusion of these items in the valuation of steel imported into Portugal artificially inflates the value of the input. Therefore, respondent argues that these additional costs would increase the value of the input by adding costs which would not be applicable to domestically sourced (Romanian) raw material.

DOC position: We disagree. When using constructed value based on the factors of production, the Department is required to value the factors of production, primarily, labor, raw materials, and energy, in the comparable economy. The value assigned to these factors is dependent upon the cost of such factors in the comparable economy. In those situations in which the comparable economy surrogate imports the raw materials, as is the case here, all costs associated with the cost of importation should remain in the value used.

Comment #3: Respondent contends that the Department, in its preliminary determination, inadvertently included in the labor cost calculation the labor hours required with respect to packing the TRBs in Romania.

Respondent claims that, since an additional charge was ultimately added for packing, the labor costs for packing were essentially double counted. Therefore, respondent feels that, for purposes of the final determination, such packing labor should not be included in the calculation of labor costs with respect to the production costs of the merchandise.

DOC position: We agree. For purposes of our final determination, packing costs have been excluded from the direct labor input element of factors of production. This measure will prevent the occurrence of double-counting.

Comment #4: Respondent contends that the wage information used by the Department for purposes of the preliminary determination is unreasonably high.

Respondent base its assertion on what it perceives to be the difference between wage information for the primary metal and fabricated metal products industry in the surrogate used in this investigation, Portugal, and wage information with respect to the TRB industry in Romania.

Respondent feels that wage rates incurred in producing TRBs in Romania are relatively low (due to the relatively high level of low-skilled labor employed) in comparison to the surrogate value which was based upon wage information which was not restricted to the production of TRBs but encompassed a wide variety of products. Accordingly, respondent feels that such surrogate information should be adjusted to reflect the fact that the relatively low level of skill involved in the production of TRBs necessarily results in lower wages being paid to the employees involved in such production.

DOC position: We disagree. The respondent did not provide the Department with information which would indicate the various skill levels involved in the production of TRBs. Accordingly, we have applied an average labor rate obtained for the fabricated metals industry in our surrogate, Portugal.

Comment #5: Respondent argues that the Department's preliminary determination of massive imports was erroneous for several reasons. First, they note that both the import penetration level and the actual volume of imports decreased in 1986. Second, the percentage increase in imports after filing of the petition was insignificantly greater than the percentage increase during the same period of 1985. Third, the value figures are meaningless because changes in value only reflect changes in product mix, not necessarily changes in the amount imported. Finally, they note that all shipments during this period were subject to long term contracts signed long before the filing of the petition and, therefore, clearly not an attempt to anticipate the preliminary determination. Additionally, two U.S. customers of the respondent argue that the increase after the filing of the

petition is accounted for by seasonal cycles.

DOC position: We continue to believe that massive imports exist for purposes of the critical circumstances determination. First, while import penetration levels and the actual volume of imports are factors to be considered, they are not determinative. The purpose of the critical circumstances provision is to prevent attempts to circumvent the suspension of liquidation by stockpiling imports prior to the preliminary determination. As such, the behavior after filing the petition and before the date of the preliminary determination is critical. Import penetration levels and actual volumes can help establish a trend. Here, they do not. We note that both increased substantially in 1985 from the 1984 levels, then decreased somewhat to the 1986 levels. This demonstrates no trend.

Second, the change in volume from the period immediately before the filing of the petition to the period immediately following the filing is the single most important factor we consider. Here, the increase was 109.28 percent. This increase cannot be called insignificant. We did note increases during the same periods in 1984 and 1985 of 19.58 percent and 85.32 percent, respectively. Some of this increase may be accounted for by seasonal cycles but no evidence has been submitted to support this. Even if there was a seasonal increase, we do not believe it would account for all of the increase. Seasonally adjusted statistics would still show a significant increase after the filing of the petition supporting a finding of massive imports.

Third, we agree that value figures may not accurately reflect the situation, and have given them little weight in our consideration. However, to the extent that we did consider them, they, too, indicate massive imports.

Finally, we do not believe that the existence of long term contracts in this case precludes a finding of massive imports. Most of the contracts we examined did not provide a binding schedule of shipments. Respondent itself noted that, where schedules were included, shipments could be, and were, cancelled. Thus, we find the contracts do not account for the import pattern and we find that the level of imports may have been affected by the filing of the petition. For these reasons, we maintain that there were massive imports for the purposes of the critical circumstances determination.

Comment #6: Petitioner's allegation of critical circumstances is not supported by substantial evidence because its allegation of a history of dumping is based on an investigation in the

European Community covering far more products than those subject to this investigation. The low margins found at the preliminary determination in this case demonstrate that there is no basis to conclude the importers knew or should have known of the dumping of TRBs from Romania. The small market share of Romanian TRBs, and the fact that shipments during the period of investigation are all made pursuant to earlier contracts, show that imports have not been massive.

DOC position: We disagree. See the section of this notice entitled *Final Affirmative Determination of Critical Circumstances*.

Interested Party Comments

Comments #1: Marsuda-Rodgers (an importer of TRBs from Romania) contends that, although some Romanian and domestically-produced TRBs, may share identical identification numbers, they are not necessarily interchangeable. Marsuda-Rodgers asserts that domestically-produced TRBs are physically superior to Romanian TRBs and notes that the petitioner in this investigation, in its product brochures, points out the relative superiority of TRBs produced domestically. Marsuda-Rodgers asserts that the higher quality domestically-produced TRBs because of their inherent capacity to withstand high pressure usage, can command a higher price in the market and, therefore, cannot reasonably be compared to Romanian TRBs, which are not as well-suited for high-pressure situations.

Therefore, if the Department uses price-to-price comparisons for purposes of its final determination, and uses case-carburized TRBs produced in a surrogate country as a basis for foreign market value, it should devise a method for making adjustments for differences in the subject merchandise.

DOC position: As we are not basing our final determination upon price-to-price comparisons, but rather on constructed value based upon factors of production, this issue need not be addressed for purposes of our final determination.

Final Affirmative Determination of Critical Circumstances

In determining whether critical circumstances exist, section 735(a)(3) of the Tariff Act of 1930, as amended (the Act) (19 U.S.C. 1673(a)(3)) requires that we examine whether:

(A)(i) there is a history of dumping in the United States or elsewhere of the class or kind of merchandise which is the subject of the investigation; or

(ii) the person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the merchandise which is the subject of the investigation at less than fair value; and

(B) there have been massive imports of the class or kind of merchandise which is the subject of the investigation over a relatively short period.

Pursuant to section 735(a)(3), we reviewed past antidumping findings of the Department of Treasury as well as past Department of Commerce antidumping orders to determine whether there is a history of dumping of TRBs from Romania in the United States. There have been no past United States antidumping determinations on TRBs from Romania. We also reviewed the antidumping actions of other countries made available to us through the Antidumping Code Committee established by the Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade. We found that the Commission of European Communities (EC) made a preliminary determination of dumping and injury. Subsequently, on June 4, 1981, the EC and Romania entered an undertaking with respect to roller bearings. On April 15, 1986, this undertaking was terminated. (*Official Journal of the European Communities*, No. L 102-31, April 18, 1986.) We have therefore determined, based on this EC undertaking, that there is a history of dumping of the class or kind of merchandise which is the subject of this investigation. Accordingly, we do not have to consider whether the persons by whom, or for whose account, this product was imported knew or should have known that it was being sold at less than fair value under section 735(a)(3) of the Act.

Pursuant to section 735(a)(3)(B), we generally consider the following data in order to determine whether massive imports have taken place over a short period of time: (1) The volume and value of the imports; (2) seasonal trends; and (3) the share of the domestic consumption accounted for by the imports. We found that imports have been massive since the filing of the petition even though total volume and value have decreased since 1985. Import penetration was not available for the second half of 1986.

For the reasons described above, we maintain that "critical circumstances" exist with respect to TRBs from Romania.

Continuation of Suspension of Liquidation

In accordance with section 735(d) of the Act, we are directing the United States Customs Service to continue to suspend liquidation of all entries of TRBs from Romania that are entered or withdrawn from warehouse, for consumption, on or after the publication date of this notice in the Federal Register. The Customs Service shall require a cash deposit or the posting of a bond on all such entries equal to the estimated weighted-average amount by which the foreign market value of the merchandise subject to this investigation exceeds the United States price, which is 8.70 percent of the ex-factory value. Since we have made a final affirmative critical circumstances determination, we are countinuing the retractive suspension of liquidation ordered by our March 27, 1987, preliminary affirmative critical circumstances determination. The effective date for the suspension of liquidation of this investigation is November 7, 1986, ninety days prior to the date of publication of our preliminary affirmative determination of sales at less than fair value.

This suspension of liquidation will remain in effect until further notice.

ITC Notification

In accordance with section 735(d) of the Act, we have notified the ITC of our determination. In addition, we are making available to the ITC all nonprivileged and nonproprietary information relating to this investigation. We will allow the ITC access to all privileged and business proprietary information in our files, provided the ITC confirms that it will not disclose such information, either publicly or under an administrative protective order, without the written consent of the Deputy Assistant Secretary for Import Administration. The ITC will make its determination whether these imports materially injure, or threaten material injury to, a U.S. industry within 45 days of the date of this determination. If the ITC determines that material injury, or threat of material injury, does not exist, this proceeding will be terminated and all securities posted as a result of the suspension of liquidation will be refunded or cancelled.

However, if the ITC determines that such injury does exist, we will issue an antidumping duty order directing Customs Officers to assess an antidumping duty on TRBs from Romania entered, or withdrawn from warehouse, for consumption on or after

the date of suspension of liquidation, equal to the amount by which the foreign market value of the merchandise exceeds the United States price.

This determination is published pursuant to section 735(d) of the Act (19 U.S.C. 1673d(d)).

Paul Freedenberg,

Assistant Secretary for Trade Administration.

May 4, 1987.

[FR Doc. 87-10532 Filed 5-7-87; 8:45 am]

BILLING CODE 3510-08-M

International Trade Administration

(A-570-601)

Tapered Roller Bearings From the People's Republic of China; Final Determination of Sales at Less Than Fair Value**AGENCY:** International Trade Administration, Import Administration, Commerce.**ACTION:** Notice.

SUMMARY: We have determined that tapered roller bearings from the People's Republic of China (PRC) are being, or are likely to be, sold in the United States at less than fair value. The U.S. International Trade Commission (ITC) will determine, within 45 days of publication of this notice, whether these imports are materially injuring, or are threatening material injury to a United States industry.

EFFECTIVE DATE: May 27, 1987.

FOR FURTHER INFORMATION CONTACT: Michael Ready or Mary S. Clapp, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone (202) 377-2613 or 377-1769.

SUPPLEMENTARY INFORMATION:**Final Determination**

We have determined that tapered roller bearings from the PRC are being, or are likely to be, sold in the United States at less than fair value as provided in section 735 of the Tariff Act of 1930, as amended (19 U.S.C. 1673d) (the Act). The weighted-average margin is .97 percent. No margins were found on exports by China National Machinery & Equipment Import & Export Corporation. Therefore, this exporter is excluded from this determination.

Case History

We published a preliminary determination of sales at less than fair value on February 6, 1987 (52 FR 3833).

Since then the following events have occurred:

On February 17, 1987, the respondent requested a postponement of the final determination. We granted this request and postponed the due date for the final determination until no later than May 20, 1987 (52 FR 8088, March 16, 1987).

As required by the Act, we afforded interested parties an opportunity to submit oral and written comments addressing the issues arising in this investigation. On April 30, 1987, we held a public hearing to allow parties to address the issues.

Scope of Investigation

The products covered by this investigation are tapered roller bearings and parts thereof, currently classified in *Tariff Schedules of the United States* (TSUS) item numbers 680.30 and 680.39; flange, take up cartridge, and hanger units incorporating tapered roller bearings, currently classified in TSUS item 681.10; and tapered roller housings (except pillow blocks) incorporating tapered roller, with or without spindles, whether or not for automotive use, currently classified in TSUS item number 692.32 or elsewhere in the TSUS.

Fair Value Comparisons

Because CMEC and Premier accounted for all sales of this merchandise from the PRC, we limited our investigation to them. To determine whether sales of the subject merchandise in the United States were made at less than fair value, we compared the United States prices with the foreign market value. We investigated all sales of the subject merchandise for the period September 1, 1985, through August 31, 1986. We used a twelve-month period of investigation because the respondents had insufficient sales in the original six-month period of investigation.

United States Price

As provided in section 772 of the Act, we used the purchase price of the subject merchandise to represent the United States price for sales by CMEC and Premier because the merchandise was sold to unrelated purchasers prior to its importation into the United States.

We calculated the purchase price for sales by CMEC based on the f.o.b. or c.i.f. price to unrelated purchasers. We made deductions, where applicable, for inland freight charges, ocean freight charges, and port charges. In accordance with the policy set forth in our final determination in the investigation of carbon steel wire rod from Poland (49 FR 29434, July 20, 1984), we based the deduction for inland freight and port

charges on similar charges in a non-state-controlled-economy country.

We based the deduction for ocean freight charges on the weighted-average charge incurred by CMEC on shipments carried by non-state-owned steamship companies.

We calculated the purchase price for sales by Premier based on the f.o.b. or c.i.f. price to unrelated purchasers. We made deductions, where applicable, for brokerage and handling charges, ocean freight and marine insurance.

Foreign Market Value

Petitioner alleged that the PRC is a state-controlled-economy country and that sales of the subject merchandise in that country do not permit a determination of foreign market value under section 773(a) of the Act. After an analysis of the PRC's economy, and consideration of the briefs submitted by the parties, we concluded that the PRC is a state-controlled-economy country for purposes of this investigation. Basic to our decision on this issue is the fact that the central government of the PRC controls the prices and levels of production of the bearing industry, as well as the internal pricing of the factors of production.

As a result, section 773(c) of the Act requires us to use prices or the constructed value of such or similar merchandise in a "state-controlled-economy" country. Our regulations establish a preference for foreign market value based upon sales prices. They further stipulate that, to the extent possible, we should determine sales prices on the basis of prices in a "non-state-controlled-economy" country at a stage of economic development comparable to the country with the state-controlled economy.

After an analysis of countries producing tapered roller bearings, we determined that India would be the most appropriate surrogate. We sent questionnaires requesting assistance in these investigations to six companies in India. We received a questionnaire response from one company in India, but we were unable to use this data as a basis of calculating foreign market value because the Government of India did not permit us to verify the submitted data.

Additionally, we could not use import prices from non-state-controlled-economy countries in this case because the applicable Department of Commerce statistics for the subject merchandise were based on categories that were too broad to make product-specific comparisons.

Therefore, as the best information otherwise available, we calculated constructed value based on the factors of production reported by the PRC producers. We used the best information available for valuing the factors of production. Where possible, best information available was obtained from publicly available information in India.

Raw material prices were based on Indian prices published by the Steel Authority of India adjusted for inflation using the wholesale price index for India published by the International Monetary Fund. Where necessary, prices for merchant quality steel were adjusted to prices for bearing quality steel by using a ratio calculated from data in the Trigger Price Mechanism (TPM) Manual.

The cost of labor was based on data published by the International Labor Organization (adjusted as above for inflation) concerning average earnings in India for workers in ISIC category 382 (Manufacture of Machinery, except electrical). We made an addition of 31 percent for employee fringe benefits based on publicly available information in India.

We based the amount added for factory overhead on publicly available data for the bearing industry in India.

We used the statutory minimum of 10 percent of the sum of material, fabrication costs, and overhead for general, sales and administrative expenses, and the statutory minimum of eight percent for profit.

We based the amount added for packing on data in the public version of the questionnaire response of a market-economy country tapered roller bearing producer involved in a current antidumping investigation.

With respect to sales by Premier, in accordance with section 773(f) of the Act, we based foreign market value on the prices at which Premier sold such or similar merchandise to third countries (Pakistan and Singapore), since there were no sales in the home market of Hong Kong of tapered roller bearings from the PRC. From these prices, we deducted, where applicable, charges for brokerage and handling, ocean freight and marine insurance. We made adjustments, where applicable, for differences in credit costs and for commissions Premier paid on certain sales to the United States.

We made currency conversions in accordance with § 353.56(a)(1) of the Commerce Regulations, using certified exchange rates as furnished by the Federal Reserve Bank of New York.

Verification

As provided in section 776(a) of the Act, we verified data used in making this determination by using verification procedures which included on-site inspection of manufacturers' facilities and examination of company records and selected original source documentation containing relevant information.

Petitioner's Comments

Comment 1: Petitioner argues that, in calculating constructed value for the preliminary determination, the Department undervalued factory overhead. The petitioner suggests that the amount added for factory overhead should equal at least 40 percent of total cost of manufacture, based upon the experience of several Japanese manufacturers, the petitioner in the United States, and the petitioner's subsidiary in Brazil.

DOC Response: We disagree. The Department has obtained, and used as the best information available, a factory overhead rate from a surrogate company in the bearing industry in India.

With regard to petitioner's request that we use the factory overhead experience of Japan and the United States as being representative of the PRC industry, the Department considers the factory overhead experience of a surrogate company in a comparable-economy country preferable to the alternatives offered by the petitioner.

We are required to select a comparable economy in which to value the factors of production information. The rationale behind selecting a comparable economy is that the experience of a producer in a comparable-economy country is reflective of the same degree of economic and industrial development as that of a producer in a comparable non-market-economy country. The United States and Japanese overhead ratios offered by the petitioner are for fully industrialized economies whose TRB producers use highly automated, state-of-the-art production equipment, in which factory overhead is high and direct labor low. The PRC production facilities use less automated and less sophisticated machinery and are much more labor intensive. In such instances, direct factory overhead would be lower and direct labor higher than for U.S. and Japanese TRB producers.

With regard to the petitioner's Brazilian-subsiary's factory overhead data, we note that the data was contained in a questionnaire response that was not received until one month after the Department's preliminary

determination. It has been the Department's position that, in order to be considered in a final determination, a complete and full voluntary response must be received by the date of the preliminary determination. Furthermore, we do not consider Brazil and the PRC to be at comparable levels of economic development.

Comment 2: Petitioner argues that in calculating constructed value for the preliminary determination, the Department undervalued labor cost. Petitioner argues that the amount added for labor should be based on total labor cost to manufacturers, not just the earnings of workers.

DOC Response: We agree. See our discussion of labor costs in the foreign market value section of this notice.

Comment 3: Petitioner argues that, in calculating constructed value for the preliminary determination, the Department selected the wrong industry category in India as a source for labor earnings data.

DOC Response: We disagree. In calculating constructed value we determined the amount to be added for labor expenses on average earnings in India, in the industry category "Manufacture of machinery, except electrical." We believe this category most properly encompasses the manufacture of TRBs.

Comment 4: Petitioner argues that in calculating constructed value for the preliminary determination, the Department undervalued raw material cost.

DOC Response: For the preliminary determination we valued raw materials based on average import prices from Japan and Sweden to the United States. As noted above in the Foreign Market Value section of this notice, for the final determination we valued raw materials on prices in India drawn from publicly available data. We have made this change because we believe that using a comparable surrogate country's prices is preferable to using non-comparable countries' prices. These prices used for the final determination, which were calculated using methodology proposed by the petitioner, are somewhat higher than the prices used for the preliminary determination.

Comment 5: Petitioner argues that, in calculating constructed value, the Department should not make an adjustment for scrap unless it verifies that the PRC factory does in fact recover and sell scrap generated in the manufacturer of TRBs.

DOC Response: The Department verified that the PRC factory did in fact recover and sell or recycle scrap

generated. We therefore have made an adjustment for scrap in the calculation of constructed value.

Comment 6: Petitioner argues that foreign market value should be based on the data received from the Indian manufacturers, despite the fact that we were unable to verify the data in India. Petitioner suggests that we could verify the reasonableness of the Indian data by comparing Indian home market prices with the information available to the Department on TRB prices from other countries such as Brazil, Spain, Mexico, Argentina, and the United States.

DOC Response: We disagree. We do not believe that comparing Indian prices to prices in the five countries named by petitioner would satisfy the statutory requirement for verification.

Comment 7: Petitioner argues that the Department may not use the factors of production constructed value method provided for in § 353.8(c) of the Commerce regulations as the basis for foreign market value in this investigation.

Petitioner contends that § 353.8(a) and (b) of the Commerce regulations establishes a hierarchy for determining foreign market value in which prices and constructed value of such or similar merchandise take preference over the factors of production constructed value method under 353.8(c). The Department must first consider prices and constructed value of such or similar merchandise under 353(a) and (b) in the following order of preference: (1) A non-state-controlled-economy country at a stage of economic development comparable to the state-controlled-economy country from which the merchandise is exported; (2) a non-state-controlled-economy country not necessarily at a stage of economic development comparable to the state-controlled-economy country, other than the United States, suitably adjusted for known differences in costs of materials and labor; and (3) the United States. According to the petitioner, the Department must exhaust all of these established preferences before resorting to the factors of production approach.

DOC Response: We disagree. Petitioner's hierarchy of methods of calculating foreign market value, under which the factors of production constructed value approach would be a last resort, is based upon a misconception of 19 CFR 353.8 and applicable precedent. The Commerce regulation and past Departmental practice does establish a preference for the use of comparable economy sales prices and constructed value as the basis for foreign market value. However, it is not true, as petitioner claims, that

under § 353.8(b) foreign market value based on sales prices or constructed value in a non-state-controlled-economy country not at a comparable stage of economic development are preferable to the factors of production constructed value approach under § 353.8(c).

Section 353.8(b)(1) of the regulations makes clear that the preference in favor of sales is tempered by the overriding preference for ascertaining foreign market value by reference to comparable non-state-controlled economies. *Chemical Products Corp. v. United States*, 12 CIT _____, Slip Op. 86-97 (September 28, 1986). The Department would arrive at § 353.8(b)(2) only after it has exhausted the pricing and constructed value options in comparable economies, i.e., under § 353.8 (a) and (c).

In this case, verified surrogate sales price and constructed value information was not available from TRB producers in any of the non-state-controlled-economy countries determined by the Department to be at stages of economic development comparable to that of the PRC. The Department sent surrogate questionnaires to six firms in these countries. As noted above, one company in India replied to our questionnaire, but the Indian Government would not allow us to verify the replying company's data. However, the Department was able to obtain, verify, and find values for the respondent's factors of production information. Therefore, factors of production constructed value methodology has been used for purposes of determining foreign market value with respect to the final determination in this investigation.

Comment 8: Petitioner argues that the DOC should use as the basis for calculating Premier's foreign market value the foreign market value calculated for sales by CMEC, plus CMEC's expenses incurred in selling to Premier, plus expenses incurred by Premier in reselling the merchandise.

DOC Response: We disagree. At the time of the sales to Premier, CMEC was unaware of the countries to which Premier intended to resell the merchandise. Therefore, foreign market value for Premier's sales to the United States is required to be calculated pursuant to section 773(f) of the Act.

Respondent's Comments

Comment 1: Respondent argues that, in the absence of verified data from a surrogate producer at a comparable level of economic development, foreign market value for CMEC should be based on constructed value using PRC factors of production.

DOC Response: We agree. See our response to petitioner's comment 7 above.

Comment 2: Respondent argues that, in calculating foreign market value for the preliminary determination, the Department overvalued raw material cost. Respondent suggests we should value certain of the raw materials based upon sales prices or offers of imported bearing steel in China.

DOC Response: We disagree. Sales prices submitted by the respondent pertain to sales made after the period of investigation.

Comment 3: Respondent argues that, in calculating constructed value, the Department should not base its addition for raw material costs solely on the price of bars (for producing cups and cones), but should also find values for bars (for producing rollers) and sheet (for producing cages).

DOC Response: We agree and have done so.

Comment 4: Respondent argues that the Department should publish separate dumping rates for CMEC and Premier rather than a single weighted-average rate.

DOC Response: We agree. These companies are not related. We found no evidence that CMEC knew the final destination of the products that Premier purchased. Therefore it is appropriate to calculate separate rates for the two companies.

Comment 5: Respondent argues that the calculations for Premier should be revised to incorporate corrected data developed as a result of the verification process.

DOC Response: We agree and have done so.

Continuation of Suspension of Liquidation

We are directing the United States Customs Service to continue to suspend liquidation of all entries of tapered roller bearings from the PRC, except entries of merchandise exported by CMEC directly to U.S. purchasers, that are entered, or withdrawn from warehouse, for consumption, on or after February 6, 1987, the date of publication of the preliminary determination in the Federal Register. The United States Customs Service shall continue to require a cash deposit or the posting of bond equal to the estimated weighted-average amount by which the foreign market value of the merchandise subject to this investigation exceeds the United States price. The bond or cash deposit amounts established in our preliminary determination of February 6, 1987, remain in effect with respect to entries

or withdrawals made prior to the date of publication of this notice in the Federal Register. With respect to entries or withdrawals made on or after the date of publication of this notice, except entries of merchandise exported by CMEC, the bond or cash deposit amounts required are shown below. CMEC is not included in this determination since we have found no margins for this company.

Manufacturer / producer / exporter	Weighted-average margin percentage
Premier Bearing & Equipment Ltd.	.97
All Others	.97

ITC Notification

In accordance with section 735(d) of the Act, we will notify the ITC of our determination.

The ITC will make its determination whether these imports are materially injuring, or threatening to materially injure, a U.S. industry within 45 days of the publication of this notice. If the ITC determines that material injury or threat of material injury does not exist, this proceeding will be terminated and all securities posted as a result of the suspension of liquidation will be refunded or cancelled. However, if the ITC determines that such injury does exist, we will issue an antidumping duty order directing Customs officers to assess an antidumping duty on tapered roller bearings from the PRC entered, or withdrawn from warehouse, for consumption after the suspension of liquidation, equal to the amount by which the foreign market value exceeds the United States price.

The determination is being published pursuant to section 735(d) of the Act (19 U.S.C. 1673d(d)).

Paul Freedenberg,

Assistant Secretary for Trade Administration.

May 20, 1987.

[FR Doc. 87-12011 Filed 5-26-87; 8:45 am]

BILLING CODE 3510-08-00

request to the Deputy Assistant Secretary for Import Administration, Room B-099, at the above address within 10 days of this notice's publication. Requests should contain: (1) The party's name, address, and telephone number; (2) the number of participants; (3) the reason for attending; and (4) a list of the issues to be discussed. In addition, prehearing briefs in at least 10 copies must be submitted to the Deputy Assistant Secretary by March 20, 1987. Oral presentations will be limited to issues raised in the briefs. All written views should be filed in accordance with 19 CFR 353.46, not less than 30 days before the final determination, or if a hearing is held, within 7 days after the hearing transcript is available, at the above address in at least 10 copies.

This determination is published pursuant to section 733(f) of the Act (19 U.S.C. 1673b(f)).

Gilbert B. Kaplan,

Deputy Assistant Secretary for Import Administration.

February 2, 1987.

[FR Doc. 87-2548 Filed 2-5-87; 8:45 am]

BILLING CODE 3510-05-M

[A-475-603]

Tapered Roller Bearings and Parts Thereof, Finished or Unfinished From Italy; Preliminary Determination of Sales at Less Than Fair Value

AGENCY: International Trade Administration, Import Administration, Commerce.

ACTION: Notice.

SUMMARY: We have preliminarily determined that tapered roller bearings and parts thereof, finished or unfinished (tapered roller bearings), from Italy are being, or are likely to be, sold in the United States at less than fair value. We have notified the U.S. International Trade Commission (ITC) of our determination, and we have directed the U.S. Customs Service to suspend liquidation of all entries of the subject merchandise that are entered or withdrawn from warehouse, for consumption, on or after the date of publication of this notice, and to require a cash deposit or bond for each entry in an amount equal to the estimated dumping margin as described in the "Suspension of Liquidation" section of this notice. If this investigation proceeds normally, we will make a final determination by April 20, 1987.

EFFECTIVE DATE: February 6, 1987.

FOR FURTHER INFORMATION CONTACT: Mary S. Clapp (202-377-1769) or Karen

S. DiBenedetto (202-377-1778), Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230.

SUPPLEMENTARY INFORMATION:

Preliminary Determination

We have preliminarily determined that tapered roller bearings and parts thereof, finished or unfinished, from Italy are being, or are likely to be, sold in the United States at less than fair value as provided in section 733 of the Tariff Act of 1930, as amended (19 U.S.C. 1673b) (the Act). The margin of sales at less than fair value is 54.18 percent.

Case History

On August 25, 1986, we received a petition in proper form filed by the Timken Company, on behalf of the U.S. industry producing tapered roller bearings. In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from Italy 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 Act, and that these imports are causing material injury, or threaten material injury, to a United States industry.

After reviewing the petition, we determined that it contained sufficient grounds upon which to initiate an antidumping duty investigation. We initiated the investigation on September 15, 1986 (51 FR 33285, September 18, 1986), and notified the ITC of our action.

On October 2, 1986, the ITC determined that there is a reasonable indication that imports of tapered roller bearings from Italy are materially injuring a U.S. industry (U.S. ITC Pub. No. 1899, October 1986).

On November 14, 1986, a questionnaire was presented to RIV-SKF, the only known exporter of the subject merchandise from Italy to the United States. We granted an extension of time in which to respond.

On December 29, 1986 and January 14, 1987, we received the narrative questionnaire responses. On December 31, 1986 and January 14, 1987, we received computer tapes listing data relating to the responses. We found that the questionnaire responses were insufficient. We sent a deficiency letter on January 15, 1987.

On January 20, 1987, petitioner alleged that sales of cup and cone sets in the home market were below the cost of production.

Scope of Investigation

The products covered by this investigation are tapered roller bearings and parts thereof (tapered roller bearings), currently classified under the *Tariff Schedules of the United States* (TSUS) under items 680.30 and 680.39; flange, take-up cartridge, and hanger units incorporating tapered roller bearings currently classified under TSUS item 681.10; and tapered roller housings (except pillow blocks) incorporating tapered rollers, with or without spindles, whether or not for automotive use, and currently classified under TSUS item 692.32 or elsewhere in the TSUS.

Fair Value Comparisons

Because RIV-SKF accounted for all sales of this merchandise from Italy, we limited our investigation to it. To determine whether sales of the subject merchandise in the United States were made at less than fair value, we compared the United States price to the foreign market value. We made comparisons on approximately 93% of the sales of RIV-SKF's products during the period of investigation, March 1, 1986 through August 31, 1986.

United States Price

As provided in section 772(b) of the Act, we based the United States price on purchase price because the merchandise was sold to unrelated purchasers in the United States prior to importation. We made deductions from f.o.b. U.S. warehouse prices for ocean freight, marine insurance, brokerage, U.S. inland freight, U.S. duty and foreign inland freight, as appropriate. Because the respondent provided us with only aggregate values for these deductions, we have allocated the deductions on a per unit basis for purposes of our preliminary determination. We have requested additional data to allow us to determine the most appropriate basis of allocation to be used for our final determination.

Foreign Market Value

In accordance with section 773(a)(1)(A) of the Act, we based foreign market value for standard cups, cones, and sets on sales in the home market. In accordance with section 773(a)(1)(B) of the Act, we determined that there were insufficient home market sales of such or similar merchandise to be used as a basis for determining foreign market value for tapered bearing units (TBU's). The third country market with the largest volume of sales of the most similar TBU's is Canada. We made comparisons of "such or similar".

merchandise based on use, size, and type of the particular TBU's involved.

On January 20, 1987, petitioner alleged that the home market prices for the cup and cone sets were below the cost of production. We did not have sufficient time to develop data for purposes of the preliminary determination. We will address this issue in the final determination.

We made no deductions from Canadian ex-warehouse or f.o.b. prices since we did not have sufficient information to justify such adjustments. We deducted rebates from the Italian ex-warehouse prices. We made adjustments to account for differences in the physical characteristics of the merchandise, in accordance with section 353.16 of the Commerce Regulations. We are seeking additional information for the cups and cones sold in the United States which were compared to sets sold in Italy.

Because we were not supplied with the actual dates of some of the respondent's United States sales, we were unable to make currency conversions based on the date of sale, as required by § 353.56(a) of our regulations. Accordingly, we used, as the best information available, the date of sale in the middle of the period of investigation. For the U.S. sales that did have dates of sale, we made currency conversions from Italian lire or Canadian dollars to U.S. dollars in accordance with § 353.56(a) of our regulations, using the certified daily exchange rates furnished by the Federal Reserve Bank of New York.

Verification

As provided in section 776(a) of the Act, we will verify all information used in reaching the final determination in this investigation.

Suspension of Liquidation

In accordance with section 733(d) of the Act, we are directing the United States Customs Service to suspend liquidation of all entries of tapered roller bearings and parts thereof, finished or unfinished, from Italy that are entered, or withdrawn from warehouse, for consumption, on or after the date of publication of this notice in the Federal Register.

The Customs Service shall require a cash deposit or the posting of a bond equal to the estimated amount by which the foreign market value of the merchandise subject to this investigation exceeded the United States price, which was 54.18 percent of the ex-factory value. This suspension of liquidation will remain in effect until further notice.

ITC Notification

In accordance with section 733(f) of the Act, we will notify the ITC of our determination. In addition, we are making available to the ITC all nonprivileged and nonproprietary information relating to this investigation. We will allow the ITC access to all privileged and proprietary information in our files, provided the ITC 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 Import Administration.

The ITC will determine whether these imports are materially injuring, or are threatening material injury to, a U.S. industry before the later of 120 days after the date of our preliminary affirmative determination or 45 days after we make our final affirmative determination.

Public Comment

In accordance with section 353.47 of our regulations (19 CFR 353.47), if requested, we will hold a public hearing to afford interested parties an opportunity to comment on this preliminary determination at 1:30 p.m. on March 11, 1987, at the U.S. Department of Commerce, Room 3708, 14th and Constitution Avenue, NW., Washington, DC 20230. Individuals who wish to participate in the hearing must submit a request to the Deputy Assistant Secretary for Import Administration, Room B-099, at the above address within 10 days of the publication of this notice. Requests should contain: (1) The party's name, address and telephone number; (2) the number of participants; (3) the reason for attending; and (4) a list of the issues to be discussed.

In addition, prehearing briefs in at least 10 copies must be submitted to the Deputy Assistant Secretary by March 4, 1987. Oral presentations will be limited to issues raised in the briefs. All written views should be filed in accordance with 19 CFR 353.46, not less than 30 days before the final determination, or, if a hearing is held, within 7 days after the hearing transcript is available, at the above address in at least 10 copies.

This determination is published pursuant to section 733(f) of the Act (19 U.S.C. 1673b(f)).

Gilbert B. Kaplan,

Deputy Assistant Secretary for Import Administration.

February 2, 1987.

[FR Doc. 87-2849 Filed 2-5-87; 9:45 am]

SELLING CODE 2610-08-01

[A-588-604]

Tapered Roller Bearings and Parts Thereof, Finished or Unfinished From Japan; Preliminary Determination of Sales at Less Than Fair Value

AGENCY: International Trade Administration, Import Administration, Commerce.

ACTION: Notice.

SUMMARY: We have preliminarily determined that tapered roller bearings and parts thereof, finished or unfinished (tapered roller bearings), from Japan are being, or are likely to be, sold in the United States at less than fair value. We have notified the U.S. International Trade Commission (ITC) of our determination, and we have directed the U.S. Customs Service to suspend liquidation of all entries of the subject merchandise that are entered or withdrawn from warehouse, for consumption, on or after the date of publication of this notice, and to require a cash deposit or bond for each entry in

an amount equal to the estimated dumping margin as described in the "Suspension of Liquidation" section of this notice. If this investigation proceeds normally, we will make a final determination by June 8, 1987.

EFFECTIVE DATE: March 27, 1987.

FOR FURTHER INFORMATION CONTACT: Mary S. Clapp (202-377-1769) or Marie G. Kissel (202-377-3798), Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230.

SUPPLEMENTARY INFORMATION:

Preliminary Determination

We have preliminarily determined that tapered roller bearings and parts thereof, finished or unfinished, from Japan are being, or are likely to be, sold in the United States at less than fair value as provided in section 733 of the Tariff Act of 1930, as amended (19 U.S.C. 1673b) (the Act). The margins of sales at less than fair value are shown in the "Suspension of Liquidation" section of this notice.

Case History

On August 25, 1986, we received a petition in proper form filed by the Timken Company, on behalf of the U.S. industry producing tapered roller bearings. In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from Japan 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 Act, and that these imports are causing material injury, or threaten material injury, to a United States industry.

After reviewing the petition, we determined that it contained sufficient grounds upon which to initiate an antidumping duty investigation. We initiated the investigation on September 15, 1986 (51 FR 33286, September 19, 1986), and notified the ITC of our action.

On October 2, 1986, the ITC determined that there is a reasonable indication that imports of tapered roller bearings from Japan are materially injuring a U.S. industry (U.S. ITC Pub. No. 1899, October 1986).

On November 19, 1986, questionnaires were presented to NTN Toyo Bearing Co., Ltd. (NTN) and Koyo Seiko Co., Ltd. (Koyo), which account for approximately 90 percent of the exports to the United States during the period of investigation. To both companies we granted an extension of time in which to respond.

On January 5, 1987 we received questionnaire responses from both companies. Additions to the responses were received on January 21, 1987 and January 28, 1987, from Koyo Seiko, and from NTN on January 20, 1987 and January 28, 1987. We found that the questionnaire responses were insufficient. We sent deficiency letters to both companies on February 9, 1987. Deficiency letter responses were received from NTN on February 20, 1987 and February 23, 1987, and from Koyo Seiko on February 24, 1987 and February 27, 1987.

On January 12, 1987, we determined this case to be extraordinarily complicated and, in accordance with section 733(c)(3) of the Act, we postponed the preliminary determination to March 23, 1987 (52 FR 2125).

Scope of Investigation

The products covered by this investigation are tapered roller bearings and parts thereof, currently classified under the *Tariff Schedules of the United States* (TSUS) under items 680.30 and 680.39; flange, take-up cartridge, and hanger units incorporating tapered roller bearings currently classified under TSUS item 681.10; and tapered roller housings (except pillow blocks) incorporating tapered rollers, with or without spindles, whether or not for automotive use, and currently classified under TSUS item 692.32 or elsewhere in the TSUS. Products subject to the outstanding dumping finding covering certain tapered roller bearings from Japan (T.D. 76-227, 41 FR 34974) are not included within the scope of this investigation. This investigation includes all tapered roller bearings and parts thereof, as described above, that are manufactured by NTN.

If during the course of this investigation the Department rescinds its revocation with respect to NTN and that rescission is affirmed by final judicial order, this antidumping investigation would be terminated with regard to any bearings manufactured by NTN that would be covered by the outstanding dumping finding.

Fair Value Comparisons

To determine whether sales of the subject merchandise in the United States were made at less than fair value, we compared the United States price to the foreign market value as specified below. Because information received from Koyo relating to merchandise which was processed prior to sale was received too late to allow us to consider it for this preliminary determination, we have based this determination on

comparisons of products which were sold in the condition in which imported. If verified, we will use the information on the sales of processed merchandise in making our final decision.

We made comparisons on approximately 90 percent of the sales of the product during the period of investigation, March 1, 1986 through August 31, 1986.

United States Price

For Koyo Seiko and certain sales by NTN, we based United States price on exporter's sales price (ESP) since those sales were made after importation, in accordance with section 772(c) of the Act. For those sales by NTN to the United States which were made prior to importation, we determined that the merchandise had been purchased from the manufacturer or producer and, therefore, based the United States price on purchase price in accordance with section 772(b) of the Act.

For sales which were made through a related sales agent in the United States to an unrelated purchaser prior to the date of importation, we used purchase price as the basis for determining United States price. For these sales, the Department determined that purchase price was the more appropriate indicator of United States price based on the following elements:

1. The merchandise in question was shipped directly from the manufacturer to the unrelated buyer, without being introduced into the inventory of the related selling agent;
2. This was the customary commercial channel for sales of this merchandise between the parties involved; and
3. The related selling agent located in the United States acted only as a processor of sales-related documentation and a communication link with the unrelated U.S. buyer.

Where all the above elements are met, we regard the routine selling functions of the exporter as having been merely relocated geographically from the country of exportation to the United States, where the sales agent performs them. Whether these functions are done in the United States or abroad does not change the substance of the transactions or the functions themselves.

In instances where merchandise is ordinarily diverted into the related U.S. selling agent's inventory, we regard this factor as an important distinction because it is associated with a materially different type of selling activity than the mere facilitation of a transaction such as occurs on a direct shipment to an unrelated U.S. purchaser. In situations where the related party

places the merchandise into inventory, he commonly incurs substantial storage and financial carrying costs and has added flexibility in his marketing. We also use the inventory test because it can be readily understood and applied by respondents who must respond to Department questionnaires in a short period of time. It is objective in nature, as the final destination of the goods can be established from normal commercial documents associated with the sale and verified with certainty.

We calculated purchase price and ESP based on the packed, duty paid, f.o.b. or c.i.f., delivered prices to unrelated purchasers in the United States. We made deductions for foreign inland freight, ocean freight, marine insurance, U.S. duty, and U.S. inland freight, as appropriate. For ESP sales, we also deducted other expenses normally incurred in selling the merchandise in the United States. Consistent with the Court of International Trade remand decision (*The Timken Co. v. United States*, Slip Op. 86-17) concerning NTN's sales of tapered roller bearings subject to a previous antidumping duty order on tapered roller bearings four inches and under in outside diameter, we treated certain U.S. credit and technical service expenses as directly related to the sales under consideration.

Foreign Market Value

As noted in the "Case History" section of this notice, petitioner alleged that home market sales were made at less than the cost of production and that constructed value should be used to compute foreign market value.

Using the respondents' submissions, we compared the home market prices to the cost of production reflecting selling expenses incurred on sales to the same level of trade. We used constructed value as the basis for calculating foreign market value where there were no, or insufficient, sales of such or similar merchandise at prices above the cost of production, as defined in § 773(b) of the Act. Koyo had sufficient sales at prices above cost to form the basis for all comparisons.

NTN's general expenses exceeded the statutory minimum of ten percent of materials and fabrication. Therefore, actual general expenses were used in calculating the constructed value. Koyo's general expenses were less than the statutory minimum, therefore, we used the 10 percent minimum. The statutory eight percent for profit was

included in the constructed value for both respondents because home market profit was less than eight percent. We added U.S. packing charges.

We made a circumstance of sale adjustment for differences in credit expenses and for comparisons to ESP, for an offset to indirect selling expenses on the U.S. sales, in accordance with § 353.15(c) of Commerce's regulations, except as noted below.

Where we found sufficient sales in the home market to form the basis of comparison, we used delivered home market prices. We made deductions for foreign inland freight and discounts. We deducted home market packing costs and added U.S. packing costs. For comparison to ESP sales, we offset selling expenses incurred on home market sales up to the amount of the indirect selling expenses incurred for sales to the U.S. market, in accordance with § 353.15(c) of our regulations. We made an adjustment for differences in credit terms in accordance with § 353.15 of our regulations. NTN claimed adjustments for differences in technical service expenses, sales commissions, advertising and warehousing expenses. We denied these claims pending the outcome of verification.

NTN submitted information relative to possible comparison models which appears to be based on its catalogue of bearings rather than models actually sold in the home market during the period of investigation. Due to the number of models involved and the number of sales transactions, we were unable to refine the data and create alternative comparison groups based on sales. Accordingly, where we could not find an appropriate home market comparison, we developed constructed value on the basis of the direct manufacturing costs of the model sold to the United States. In addition, the problems relating to the establishment of comparison groups made it impossible to determine the level of home market selling expenses which would be used in the ESP offset. Therefore, for purposes of this preliminary determination we did not offset the ESP expenses in determining the foreign market value. We are requesting additional information for purposes of the final determination.

We established such or similar merchandise comparison groups on the basis of the inside and outside diameter of the bearings and, where available, the dynamic load rating. Petitioner contends that the system life of the bearings is a

more accurate measure of similarity than the dynamic load rating. We received detailed information on the methodology for determining system life too late to consider it for this determination. We will consider petitioner's contention for purposes of the final determination. We will request additional information and comments the proposed methodology as appropriate.

Currency Conversion

For ESP comparisons, we used the official exchange rate for the date of sale since the use of that exchange rate is consistent with section 615 of the Trade and Tariff Act of 1984 (1984 Act). We followed section 615 of the 1984 Act rather than § 353.56(a)(2) of our regulations because the later law supersedes that section of the regulations.

For purchase price comparisons, we used the exchange rate described in § 353.56(a)(1) of our regulations. All currency conversions were made at the rates certified by the Federal Reserve Bank.

Verification

As provided in section 776(a) of the Act, we will verify all information used in reaching the final determination in this investigation.

Suspension of Liquidation

In accordance with section 733(d) of the Act, we are directing the United States Customs Service to suspend liquidation of all entries of tapered roller bearings and parts thereof, finished or unfinished, from Japan that are entered or withdrawn from warehouse, for consumption, on or after the date of publication of this notice in the Federal Register.

The Customs Service shall require a cash deposit or the posting of a bond equal to the estimated amount by which the foreign market value of the merchandise subject to this investigation exceeded the United States price. This suspension of liquidation will remain in effect until further notice.

Manufacturer/producer/exporter	Weighted average percentage
Koyo Seiki Co., Ltd.	36%
NTN Toyo Bearing Co., Ltd.	17%
All Others	47%

ITC Notification

In accordance with section 733(f) of the Act, we will notify the ITC of our determination. In addition, we are making available to the ITC all nonprivileged and nonproprietary information relating to this investigation. We will allow the ITC access to all privileged and business proprietary information in our files, provided the ITC 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 Import Administration.

The ITC will determine whether these imports are materially injuring, or are threatening material injury to, a U.S. industry before the later of 120 days after the date of our preliminary affirmative determination or 45 days after we make our final affirmative determination.

Public Comment

In accordance with § 353.47 of our regulations (19 CFR 353.47), if requested, we will hold a public hearing to afford interested parties an opportunity to comment on this preliminary determination at 9:30 a.m. on May 19, 1987, at the U.S. Department of Commerce, Room 3708, 14th and Constitution Avenue, NW., Washington, DC 20230. Individuals who wish to participate in the hearing must submit a request to the Deputy Assistant Secretary for Import Administration, Room B-089, at the above address within 10 days of the publication of this notice. Requests should contain: (1) The party's name, address and telephone number; (2) the number of participants; (3) the reason for attending; and (4) a list of the issues to be discussed.

In addition, prehearing briefs in at least 10 copies must be submitted to the Deputy Assistant Secretary by May 12, 1987. Oral presentations will be limited to issues raised in the briefs. All written views should be filed in accordance with 19 CFR 353.46, not less than 30 days before the final determination, or, if a hearing is held, within 7 days after the hearing transcript is available, at the above address in at least 10 copies.

This determination is published pursuant to section 733(f) of the Act (19 U.S.C. 1673b(f)).

Gilbert B. Kaplan,

Deputy Assistant Secretary for Import Administration.

March 23, 1987.

[FR Doc. 87-6795 Filed 3-26-87; 8:45 am]

BILLING CODE 3510-08-01

to the Deputy Assistant Secretary by March 19, 1987. Oral presentations will be limited to issues raised in the briefs. All written views should be filed in accordance with 19 CFR 353.46, not less than 30 days before the final determination or, if a hearing is held, within 7 days after the hearing transcript is available, at the above address in at least 10 copies.

This determination is published pursuant to section 733(f) of the Act (19 U.S.C. 1673b(f)).

Gilbert B. Kaplan,

Deputy Assistant Secretary for Import Administration,

February 2, 1987.

[FR Doc. 87-2551 Filed 2-5-87; 8:45 am]

BILLING CODE 3510-06-0

[A-478-001]

Tapered Roller Bearings and Parts Thereof, Finished or Unfinished, From Yugoslavia; Preliminary Determination of Sales at Less Than Fair Value

AGENCY: International Trade Administration, Import Administration, Commerce.

ACTION: Notice.

SUMMARY: We have preliminarily determined that tapered roller bearings and parts thereof, finished or unfinished (tapered roller bearings), from Yugoslavia are being, or are likely to be, sold in the United States at less than fair value. We have notified the U.S. International Trade Commission (ITC) of our determination, and have directed the U.S. Customs Service to suspend the liquidation of all entries of the subject merchandise that are entered or withdrawn from warehouse, for consumption, on or after the date of publication of this notice, and to require a cash deposit or bond for each entry in an amount equal to the estimated dumping margin as described in the "Suspension of Liquidation" section of this notice. If this investigation proceeds normally, we will make a final determination by April 20, 1987.

EFFECTIVE DATE: February 6, 1987.

FOR FURTHER INFORMATION: Contact Judith L. Nehring (202-377-1776) or Charles Wilson (202-377-5288), Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230.

SUPPLEMENTARY INFORMATION:

Preliminary Determination

We have preliminarily determined

that tapered roller bearings and parts thereof, finished or unfinished (tapered roller bearings), from Yugoslavia are being, or are likely to be, sold in the United States at less than fair value, as provided in section 733 of the Tariff Act of 1930, as amended (the Act) (19 U.S.C. 1673b). The margin of sales at less than fair value is 33.61 percent.

Case History

On August 25, 1986, we received a petition in proper form filed by the Timken Company, on behalf of the United States industry producing tapered roller bearings. In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from 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 Act, and that these imports are causing material injury, or threaten material injury, to a U.S. industry.

After reviewing the petition, we determined that it contained sufficient grounds upon which to initiate an antidumping duty investigation. We initiated such an investigation on September 15, 1986 (51 FR 33288, September 19, 1986), and notified the ITC of our action.

On October 2, 1986, the ITC determined that there is a reasonable indication that imports of tapered roller bearings from Yugoslavia are materially injuring a U.S. industry (U.S. ITC Pub. No. 1899, October 16, 1986).

On October 31, 1986, a questionnaire was presented to Unis, the only known exporter of the subject merchandise from Yugoslavia. We received a response on December 2, 1986.

On December 22, 1986 we sent a letter to Unis noting the deficiencies contained in their original response and requested that they revise the response and submit the revisions to the Department no later than January 9, 1987. On January 6, 1987, we granted a verbal extension to Unis until January 16, 1987. On January 16, 1987, we received a supplemental response.

On January 20, 1987, petitioner alleged that sales of tapered roller bearings in the home market were below the cost of production, pursuant to section 773(b) of the Act. They provided support for their request by comparing Timken's cost of production for two tapered roller bearings sold by Unis in the U.S. market adjusted for differences in labor costs and GS&A expenses to the U.S. price of these tapered roller bearings as reported in Unis' response. Petitioner then argued that to the extent that identical, or

similar, merchandise is sold in the home market, such sales are likely also to be below the full cost of production. This, however, does not constitute evidence which, within the meaning of section 773(b) of the Act, gives the administering authority reasonable grounds to believe or suspect that sales in the home market of the country of exportation have been made at prices which represent less than the cost of producing the merchandise in question. Therefore, we have not initiated a cost of production investigation in this case.

Scope of Investigation

The products covered by this investigation are tapered roller bearings and parts thereof, finished or unfinished (tapered roller bearings), currently classified under *Tariff Schedules of the United States* (TSUS), item numbers 680.90 and 680.99; flange, take-up cartridge, and hanger units incorporating tapered roller bearings, currently classified under TSUS item 681.10; and tapered roller housings (except pillow blocks) incorporating tapered rollers, with or without spindles, whether or not for automotive use, currently classified under TSUS item 682.92 or elsewhere in the TSUS.

Fair Value Comparisons

Because Unis accounted for all sales of the subject merchandise from Yugoslavia, we limited our investigation to it.

To determine whether sales of the subject merchandise in the United States were made at less than fair value, we compared the United States price, based on the best information available, with the foreign market value, also based on the best information available. We used the best information available as required by section 776(b) of the Act, because we did not receive an adequate response. We investigated sales for the period March 1, through August 31, 1986.

United States Price

For purposes of our preliminary determination, we have not used sales data presented by respondent to calculate United States price. Although we were provided a listing of U.S. sales, we were unable to make comparisons of such or similar merchandise to home market sales. For example, bearing designations of U.S. sales, compared to home market bearing designations with different dimensions and static load ratings were not adjusted for in the response. Also, a weight ratio to price ratio was offered for comparison, while the unit of measurement in the sales

data was presented in pieces. Using this data, an accurate comparison of U.S. merchandise to home market merchandise could not be made. Therefore, we used the petitioner's data as the best information available.

Foreign Market Value

For purposes of our preliminary determination, we also have not used sales data presented by respondent to calculate foreign market value. The home market sales section of the response contained deficiencies which rendered the data insufficient for the preliminary determination. Specifically, the respondent submitted an incomplete listing of home market sales which covered only the two largest customers in Yugoslavia and contained data on sales of "similar" merchandise identified by the respondent to that merchandise sold to the United States, instead of all home market sales made during the period of investigation. Furthermore, for sales that the respondent did report, those sales were not identifiable by dates, nor were there quantities which could be identified with those individual sales. For these reasons, we calculated the foreign market value of tapered roller bearings on the basis of the best information available, which are those prices furnished by the petitioner. We have adjusted the petitioner's prices by the average rate of exchange for the Yugoslavian dinar for the period of investigation, as reported by the International Monetary Fund.

We made currency conversions from Yugoslavian dinars to U.S. dollars in accordance with § 353.56(a) of our regulations. Normally, we use certified exchange rates furnished by the Federal Reserve Bank of New York, but no certified rates were available for Yugoslavia. Therefore, we used monthly exchange rates published by the International Monetary Fund, as best information available.

Verification

We will verify all information used in reaching the final determination in this investigation.

Suspension of Liquidation

In accordance with section 733(d) of the Act, we are directing the U.S. Customs Service to suspend liquidation of all entries of tapered roller bearings and parts thereof, finished or unfinished from Yugoslavia that are entered, or withdrawn from warehouse, for consumption, on or after the date of publication of this notice in the Federal Register. The Customs Service shall

require a cash deposit or the posting of a bond equal to the estimated amount by which the foreign market value of the merchandise subject to this investigation exceeded the United States price, which was 33.61 percent. This suspension of liquidation will remain in effect until further notice.

ITC Notification

In accordance with section 733(f) of the Act, we will notify the ITC of our determination. In addition, we are making available to the ITC all nonprivileged and nonproprietary information relating to this investigation. We will allow the ITC access to all privileged and proprietary information in our files, provided the ITC 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 Import Administration.

The ITC will determine whether these imports materially injure, or threaten material injury to, a U.S. industry before the later of 120 days after the date of our preliminary affirmative determination or 45 days after we make our final affirmative determination.

Public Comment

In accordance with § 353.47 of our regulations (19 CFR 353.47), if requested, we will hold a public hearing to afford interested parties an opportunity to comment on this preliminary determination at 1:00 p.m. on March 12, 1987, at the U.S. Department of Commerce, Room 3708, 14th and Constitution Avenue, NW., Washington, DC, 20230. Individuals who wish to participate in the hearing must submit a request to the Deputy Assistant Secretary for Import Administration, Room B-089, at the above address within 10 days of the publication of this notice. Requests should contain: (1) The party's name, address and telephone number; (2) the number of participants; (3) the reason for attending; and (4) a list of the issues to be discussed. In addition, pre-hearing briefs in at least ten copies must be submitted to the Deputy Assistant Secretary by March 5, 1987. Oral presentations will be limited to issues raised in the briefs. All written views should be filed in accordance with 19 CFR 353.46, not less than 30 days before the final determination, or, if a hearing is held, within 7 days after the hearing transcript is available, at the above address in at least 10 copies.

This determination is published pursuant to section 733(f) of the Act (19 USC 1673b(f)).

Gilbert B. Kaplan,

Deputy Assistant Secretary for Import Administration.

February 2, 1987.

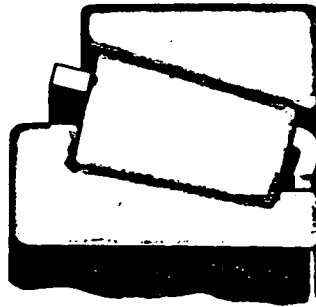
[FR Doc. 87-2552 Filed 2-5-87; 8:45 am]

BILLING CODE 3510-06-01

APPENDIX D

DOCUMENTS PERTAINING TO QUALITY ISSUES

**the
difference**



TIMKEN

REGISTERED TRADE MARK

TAPERED ROLLER BEARINGS

the material difference

All tapered roller bearings do not react similarly under load, although they may look the same even to carrying the same industry-wide part numbers. Differences which can be checked are primarily dimensions, surface finish, and refinements such as roller crowning. Very important, but not revealed to the eye, are the material characteristics. Grade and treatment of material can significantly affect the reliability of the bearing.

TIMKEN BEARING STEEL - CASE-CARBURIZED

All Timken bearing inner and outer races are machined from forged steel. In the smaller sizes, these parts are made from rotary-forged seamless steel tubing. For larger bearing sizes a separate ring is forged for each part. Either way, the best possible steel analysis must be chosen at the outset.

Timken® bearings are manufactured from low carbon carburizing grade, electric furnace, vacuum degassed, bearing quality alloy steels. Depending on the size of the bearing to be produced, appropriate quantities of nickel, molybdenum, and chromium are added to the steel melt to assure optimum properties in the final product. After machining, carbon is introduced into the surfaces of the bearing components to a depth adequate to sustain the bearing loads. This carbon and the alloy added earlier assure the proper combination of a hard, fatigue resistant case and a tough, ductile, core in the carburized and heat treated part.

THROUGH-HARDENED BEARING STEEL OR CASE-CARBURIZED BEARING STEEL

Some manufacturers of tapered roller bearings use a through-hardened high carbon steel with carbon introduced at the time of melting. The same high carbon content, therefore, appears throughout the entire section of the bearing. This practice is a carry-over of the steel used by the early European tool makers who developed the ball bearing.

Whether to utilize this practice or the more expensive case-carburization process, requiring additional treatment and different grades of steel, is a difficult decision. Most bearing manufacturers outside the United States have chosen high carbon steels. While these through-hardened steels are perfectly proper for ball bearings, the high radial and thrust loads that can be applied to tapered roller bearings demand the capability of a carburized section. Many years of experience has proved to The Timken Company - - case-carburizing steel is the best material for maximum reliability in a tapered roller bearing.

why case-carburized steel?

SUPERIOR FRACTURE TOUGHNESS

The ductile low carbon core of case-carburized and hardened bearing races greatly increases the resistance of the races to the propagation of fatigue spalls or cracks through the section. Engineers refer to a material's resistance to crack propagation as its fracture toughness. The difference in fracture toughness between case-carburized parts and through-hardened high carbon steel parts is demonstrated in the following example. Two rollers, one case-carburized, the other made from high carbon steel, were subjected to heavy static loads to purposely fracture them. As shown in Figure 1, page 4, the roller that was case-carburized and hardened cracked only through the case and remained intact. The through-hardened roller disintegrated into many fragments - - a typical fracture for this type material.

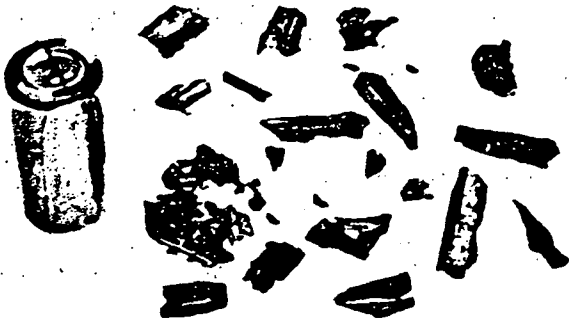


FIGURE 1 — The ductile core of the case-carburized steel part on the left allows Timken bearings to limit crack propagation.

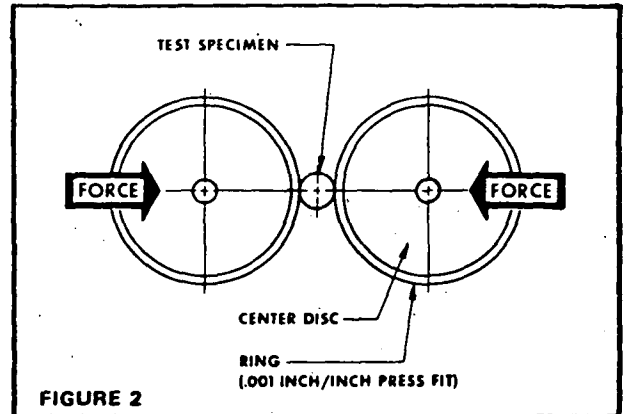
A testimony to this superior fracture toughness and performance of carburized bearing races is indicated by experience in the rolling mill industry. Tapered roller bearings made from high carbon steel at one time were widely used on U. S. heavy duty roll-neck applications in direct competition with case-carburized bearings. Today, through-hardened tapered roller bearings are practically nonexistent on these applications.

HIGH RESISTANCE TO CRACKING

Where heavy interference fits are required, bearings made of case-carburized steels have a greater resistance to cracking during mounting. And, published experimental results indicate that case-carburized tapered roller bearing inner races will withstand press fits with less fatigue damage. The following experience at The Timken Company compatible with this published information was obtained in the operation of laboratory fatigue test equipment.

Bearing materials are tested by simulating the operation of a bearing as shown in Figure 2. A 3/4" diameter round test specimen is rotated in contact with two 8-1/2" diameter load wheels at a contact pressure of 630,000 psi. The load wheels are made by pressing a ring over a solid center disc. The rings are pressed on with a 0.001" per inch interference fit.

4



The load rings were produced from carburized air melted 3310 modified and from air melted 52100. The carburized 3310 modified rings gave satisfactory performance with occasional failure due to inclusion initiated fatigue spalling. But, the through-hardened 52100 load rings spalled before any test specimen failures could be obtained. An important fact to note is, the case-carburized test specimen receives ten times as many stress reversals as the load ring.

LOW POTENTIAL FOR CATASTROPHIC FAILURE

The brittleness of through-hardened high carbon steel creates in a tapered roller bearing the potential of catastrophic failure. This occurs when a damaged or fatigued part rapidly disintegrates with possible injury to adjacent components. An example is shown in Figure 3.

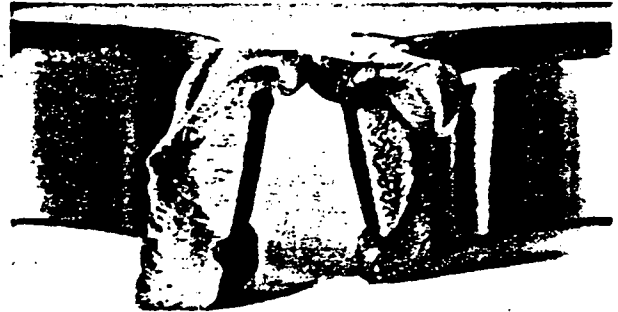


FIGURE 3 — The brittleness of through-hardened bearings creates the potential of catastrophic failure.

A catastrophic failure of this nature is most unusual in case-carburized tapered roller bearings. A fatigue spall starting in a case-carburized bearing may spread around the race but will not penetrate through the core. It has been said, a Timken bearing may ultimately suffer damage,

5

but it will get you home safely or complete your operation until proper repairs can be made. This reserve capacity is illustrated in Figure 4. A Timken bearing operating 150%, 310% and 400% of catalog life after the bearing showed initial fatigue damage continued to run and give satisfactory performance. This is a significant performance plus for case-carburized steel.

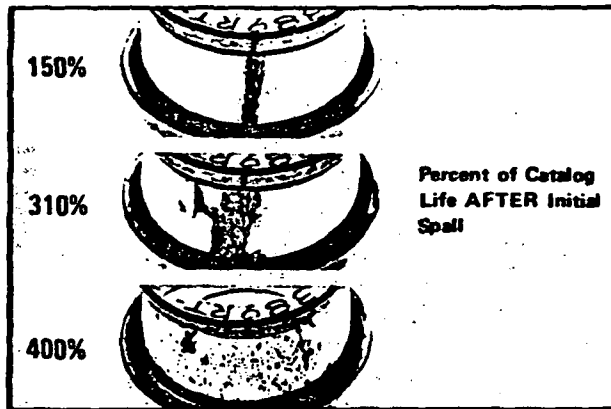


FIGURE 4 - Fatigue damage in Timken bearings may spread around the race but will not penetrate through the core.

**GOOD RESIDUAL COMPRESSIVE STRESSES FOR:
HIGH RESISTANCE TO BENDING FATIGUE
AND
RETARDING SURFACE CRACK PROPAGATION**

Another point of difference involves the inner race or cone of a tapered roller bearing. A material requirement here is high resistance to unidirectional bending fatigue at the junction of the large rib and race surface. Fatigue resistance in this region is at a minimum in cones which do not have ground radii but have machined and heat-treated undercuts. Through-hardened cones have residual tensile stresses in this area, which further lowers the bending fatigue resistance and promotes quench cracking at surface irregularities in these unground undercuts (Figure 5). In the Timken bearing, case-carburized cones have residual compressive stresses at the undercut surface and not only have much greater bending fatigue resistance, but complete freedom from general cracking (Figure 6). Therefore, rib breakage in case-carburized bearings is rare.

The residual compressive stresses present in the surface layers of case-carburized tapered roller bearings not only improve the bending fatigue resistance at the large rib undercut but also retard the propagation of cracks in the race surfaces. The Association of American Railroads permits railroad journal bearing races having small spalls to be continued in service after smoothing the spalls with a small hand grinder. The fact that all A.A.R. approved U. S. railroad journal bearing races are case-carburized undoubtedly makes this maintenance procedure acceptable.

THE EFFECTS OF RESIDUAL TENSILE STRESSES IN THROUGH-HARDENED STEEL ...

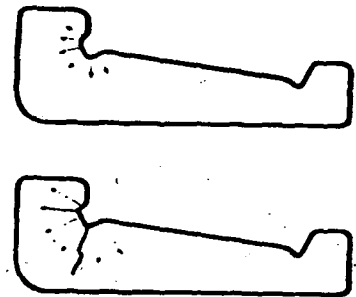


FIGURE 5

THE EFFECTS OF RESIDUAL COMPRESSIVE STRESSES IN CASE-CARBURIZED STEEL ...

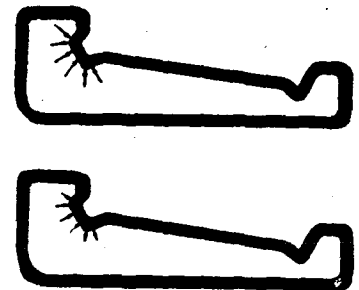


FIGURE 6

SUMMARY

The points presented here provide substantial evidence that case-carburizing steels are far better suited to tapered roller bearings than through-hardening high carbon steels. Safety factors alone make it essential in many applications.

Yes, there are bearing material differences. And the material difference, in addition to many other refinements in bearing design and manufacture, assures you of maximum reliability when you specify Timken tapered roller bearings.

A-134



THE PROOF IS IN THE MATERIAL

THE TIMKEN COMPANY

CANTON, OHIO 44706

Printed in U.S.A.
15M-10-70-PH1 9565

Order No. 5094

"Latrobe Steel Company and The Timken Company are competitive with anybody in the world in supplying steels for aerospace and other alloy steel users."

C. Philip Weigel
President - Latrobe Steel Company

steel quality. Recently, customers were notified of doubled bearing life on many part numbers.

A supplier of specialty alloy steels, Latrobe Steel Company, our wholly owned subsidiary, works closely with the Steel Business in meeting the needs of customers. The relationship between the two companies is one of synergy, a partnership where combined results exceed what is possible through individual action.

Latrobe maintains a strong presence in the world market for aircraft quality steels, where end-use applications include aircraft bearings, fasteners and structural components. As aerospace manufacturers form more multinational consortia to defray design and manufacturing costs and to service the worldwide aircraft markets, Latrobe steels have become better known, particularly in Europe and Great Britain.

Built on our strengths, The Timken Company is clearly

Bearing Ratings Increase

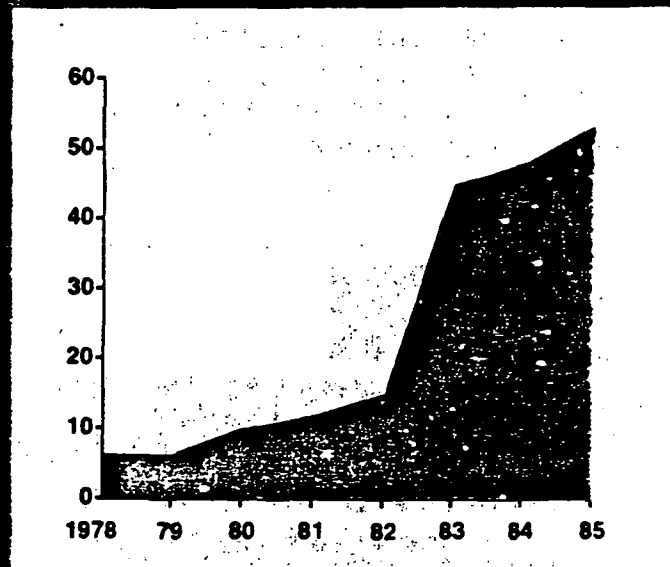
The Timken Company, in November 1986, announced rating increases for 97 percent of all Timken tapered roller bearings. The increase is attributed primarily to improvements in the quality of the steel used to make Timken bearings around the world.

This is the second significant rating increase in the last four years.

Rating increases range from 11 percent on bearings under 7/8 inches in diameter

to 35 percent on larger bearings. A rating increase of 25 percent more than doubles the calculated life of a bearing.

Timken Company customers can take advantage of the rating increase in two ways. They can continue using the present bearing part number and expect significantly longer life. Or, they can design a smaller bearing into their product, giving them the needed life, but at less cost.



This graph illustrates how the life of Timken tapered roller bearings has increased since 1978.

A-136

LOOK WHAT COMES AS STANDARD EQUIPMENT WITH EVERY TIMKEN® BEARING.

TIMKEN BEARING #: 580

MANUFACTURED BY: THE TIMKEN COMPANY
CANTON, OHIO 44706

SOLD TO: YOUR COMPANY
ANYWHERE

THE FOLLOWING ITEMS ARE STANDARD EQUIPMENT INCLUDED WITH THIS MODEL.

APPLICATION TESTING	STANDARD
LUBRICATION TESTING	STANDARD
LIFE TESTING	STANDARD
NEW PRODUCT RESEARCH	STANDARD
NEW PROCESS RESEARCH	STANDARD
APPLICATION DESIGN ENGINEERING	STANDARD
FIELD SERVICE ENGINEERING	STANDARD
DEFLECTION TESTING	STANDARD
STRESS ANALYSIS	STANDARD
BEARING SETTING TECHNOLOGY	STANDARD
SEAL DESIGN	STANDARD

THE SERVICES Timken® bearings come loaded with give you extra value. In fact, they could save you thousands of dollars.

At your design stage, our engineers can suggest ways that smaller, lighter, less-expensive tapered roller bearings can help you come up with smaller, lighter, less-expensive gear boxes, spindles, differentials, or whatever you're developing.

Our labs can share the results of the thousands of hours of appli-

cation, lubrication and bearing-life testing we run every year—crucial data that would cost huge amounts of manpower and money to generate yourself.

One of our service representatives can show you ways to get Timken bearings from receiving dock to assembly station faster with less chance of damage. And how to speed up production with one of our many automated bearing-setting methods.

No other tapered roller bearings we know of are so well equipped to help you do your job.

Shouldn't you give them a spin?

The Timken Company, Canton, Ohio 44706.

IT'S NOT JUST WHAT WE MAKE. IT'S WHAT WE KNOW.

TIMKEN®
TAPERED ROLLER BEARINGS

Timken Company has computerized the Bearing Selection Handbook

Until now, the best available source for selecting tapered roller bearings has been the Timken Company Bearing Selection Handbook. Although time consuming, bearing selections can be made by an engineer using the Handbook and a calculator as working tools. This manual process does not always assure that the best bearing has been selected for the project. The use of more sophisticated calculators and computers has improved the process somewhat, but the iterative process of estimating a solution, checking the results, trying another solution and then proving the calculations is still a time consuming, tedious process.

"SELECT-A-NALYSIS" is a Timken Company developed computerized time-sharing service that simplifies the selection of bearings. This program not only helps you select and specify bearings faster, but also selects the best combination of bearings based on the parameters you choose. With "SELECT-A-NALYSIS", an engineer can select bearings to meet specific life requirements . . . based on either catalog or lubrication-adjusted life. Selections can also be made by specifying bearing dimensional requirements. Or if you desire, specify both life and dimensional constraints, and the program will show you the best selections.

The system can analyze and select bearings from input loading conditions described by gear data, power, torque or speed histograms; external, radial and thrust loads; moments and couples. A maximum of 20 gears may be described per shaft with as many as four of the gears transmitting power simultaneously.

In addition to gear loads, "SELECT-A-NALYSIS" will consider up to ten external radial loads and ten external thrust loads as well as a total of 50 different operating conditions per shaft. Both single-row and two-row bearing arrangements can be selected.

The Timken Company takes pride in the quality of its tapered roller bearings and steel products. Likewise, we are proud that our customers have acknowledged our accomplishments through special quality recognition and certifications of valued supplier status.

United States

Association of American Railroads
 The Bendix Corporation
 Borg-Warner Corporation*
 The Budd Company
 Caterpillar, Incorporated*
 Chrysler Corporation*
 Consolidated Diesel Company
 Cummins Engine Company
 Incorporated
 Dayton-Walther Corporation
 Detroit Diesel Allison Division of
 General Motors Corporation*
 Deere & Company*
 Eaton Corporation
 Fairmont Railway Motors Div. of
 Harsco Corporation
 Ford Motor Company*
 General Motors Corporation*
 The B.F. Goodrich Company
 Goodyear Aerospace
 Corporation*
 Harley-Davidson Motor Co. Inc.
 Hydra-Matic Div., General
 Motors Corporation
 Mercury Marine Division of
 Brunswick Corporation*
 Michigan Export Company
 Rockwell International Corporation
 Saginaw — Century 21
 Saginaw Div. Buffalo Plant/
 General Motors Corporation
 Saginaw Div. Detroit Plant/
 General Motors Corporation
 Stanadyne, Inc.
 The Toro Company*
 TRW Inc.
 Twin Disc, Incorporated

* More than one location

Australia

A.M.I. Toyota Limited
 Borg Warner (Australia) Limited
 Ford Motor Company of Australia
 Limited
 The Institute of Engineers,
 Australia
 International Harvester Australia
 Limited
 Nissan Motor Manufacturing Co.
 (Australia) Limited

Brazil

Ford Brasil S.A.
 General Motors do Brasil S.A.

Canada

Ford Motor Company of
 Canada Ltd.
 General Motors of Canada Ltd.
 Kelsey-Hayes Canada

Great Britain

British Railways Board
 Caterpillar Tractor Company
 Limited
 J. I. Case (Europe) Limited
 Ford Motor Company
 Jaguar Cars Limited
 Lucas CAV Limited
 Ministry of Defence
 Unipart Group Limited
 United Kingdom Civil Aviation
 Authority
 Westland Helicopters Limited

South Africa

Borg-Warner S.A.
 Nissan S.A.
 Samcor
 Toyota S.A.
 Volkswagen S.A.

ards since our founder, Henry Timken, invented the tapered roller bearing in 1895. Current goals for quality go far beyond our long-standing ability to manufacture bearing whose parts are interchangeable throughout the world. Today, we are meeting customer requirements for ever higher performance standards for bearings — the highest in industrial history.

One of our customers hope to build a truck engine with a life expectancy of 1,000,000 miles. We can deliver a bearing for this engine that exceeds this performance specification. That's quality.

Our customers have eliminated costly receiving inspection of their purchased parts. We, therefore, provide them with evidence that our products are made right the first time and every time. Statistical Process Control (SPC) is but one method we use to document product quality. Rather than inspect quality into our products, we use very powerful SPC techniques to focus on process execution, the precise mathematical measurement of performance against specific tolerances at every manufacturing stage. We build quality into our products.

Howard Industries, Booth 540

Ac and brushless dc tube axial convection cooling fans form line that features redesigned housing and free-vortex impeller assemblies. Redesigns in "Quiet Force" fans result in improved aerodynamic and acoustic properties under peak operating conditions.

New generation of drafting plotters being introduced at Spring Design



Hewlett Packard, Booth 518

Hewlett Packard has chosen this year's Spring Design Show for the unveiling of its HP DraftMaster family of new-generation, eight-pen plotters. The family consists of single-sheet feed, rollfeed and personal computer drafting plotters offering 50 percent higher throughput and as much as 30 percent lower prices, according to the company.

Electromagnetic bearings deliver zero friction, need no lubrication

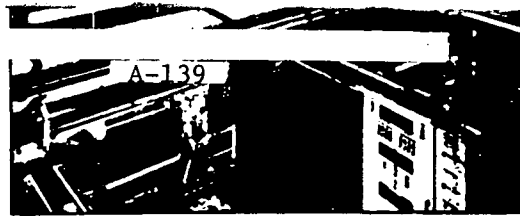
Magnetic Bearings Inc., Booth 1374

Non-contact electromagnetic bearing systems need no lubrication and deliver non-contact zero friction. Non-contact bearings levitate and maintain rotor in the center of a magnetic field to dramatically extend bearing speeds and increase rotational accuracy. Non-contact, active magnetic bearings also operate at extreme temperatures and in hostile environments while decreasing maintenance costs and down-time.

Self-lubricating powder metallurgy parts represent cost savings

Metal Powder Industries Federation, Booth 2162

Powder metallurgy parts will be on display at booth. P/M parts provide cost savings and complex designs. Parts can make use of unique combinations of materials, and are self-lubricating. For more information or for copies of "Powder Metallurgy Parts Buyers' Guide", see representatives.



Linear way has low sectional height, high corrosion resistance

IKO International, Inc., Booth 363

Stainless made linear way joins LWL series. Way's outstanding corrosion resistance, high-load ratings and high accuracy are delivered while retaining low sectional height. Company representatives at show booth can answer questions or distribute literature.

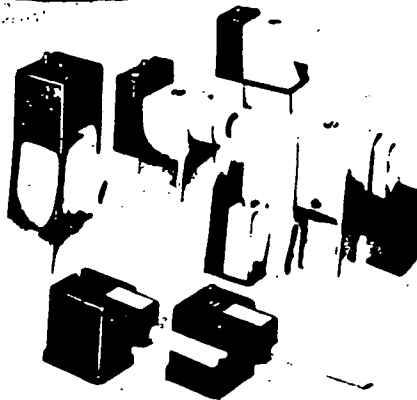
Tapered roller bearing lasts three times longer



NTN Bearing Corp. of America, Booth 1990

Lifespan of tapered roller bearing, the ET endurance tapered model, tests three times longer than standard models, according to company. Longevity is credited to combination of improved carburized steel with special heat-treating process. Reliability is significant for uses in automotive, construction equipment and agricultural equipment industries.

Suppressors/LED indicators for Solenoid Valves



Push-on solenoid valve suppressors for control system protection

- Suitable for all solenoid valves
- Fast and simple mounting
- No wiring necessary
- Suppressors for full voltage range
- LED indication of operation
- Also available with encapsulated cable

NORSTAT INC. • 150 River Road • Building 1 • Morristown, N.J. 07945 • (201) 283-4900 • Telex: 13-6488

LYNCOR
Lynn Plastics Corporation
Custom Thermoplastic Compounds
for Industry

Wireforming, metal stamping performed to specification using variety of materials

Dorco Manufacturing Inc., Booth 292

Precision wireforming and metal stamping provided by company. Ferrous and non ferrous materials can be bent, cut, welded threaded, buffed, punched, pierced, drilled tapped and ring-formed to specification. Operations are performed in both low and high carbon bright basic, stainless steel music and pre-tinned materials. Plating, painting, coating and heat treating are available.

Quick-connect coupling unit offers superior airflow, needs only one hand to connect

Hansen Manufacturing Inc., Booth 2445

Auto-Flo coupling is quick-connect unit that connects and disconnects with one hand. Unit offers leak-free seal; strong, durable body; and superior air flow for all types of compressor air systems. No manual sleeve retraction is needed and four stainless steel locking balls provide extra strength. Auto Flow 21 suits any application where high flow and air pressures up to 300 psig are required.

The remaining 42 pages of Appendix D that were provided in the staff report to the Commission contained confidential business information and consequently are not provided in this report.