UNITED STATES INTERNATIONAL TRADE COMMISSION

# STAINLESS STEEL AND ALLOY TOOL STEEL

Report to the President
on Investigation No. TA-201-5
Under Section 201 of the Trade Act of 1974

USITC Publication 756
Washington, D.C.
January 1976

UNITED STATES INTERNATIONAL TRADE COMMISSION

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Note.--The whole of the Commission's report to the President may not be made public since it contains certain information that would result in the disclosure of the operations of individual concerns. This published report is the same as the report to the President, except that the above-mentioned information has been omitted. Such omissions are indicated by asterisks.

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# REPORT TO THE PRESIDENT

United States International Trade Commission,
January 16, 1976.

To the President:

In accordance with section 201(d)(1) of the Trade Act of 1974 (88 Stat. 1978), the U.S. International Trade Commission herein reports the results of an investigation made under section 201(b)(1) of that act, relating to certain stainless steel and alloy tool steel products.

The investigation to which this report relates was undertaken to determine whether--

> ingots, blooms, billets, slabs and sheet bars; bars; wire rods; and plates, sheets and strip, not cut, not pressed, and not stamped to nonrectangular shape; all the foregoing of stainless steel, alloy tool steel, or silicon electrical steel, provided for in items 608.18, 608.52, 608.76, 608.78, 608.85, 608.88, 609.06, 609.07 and 609.08 of the Tariff Schedules of the United States (TSUS), and as additionally subject to duty under items 607.01 through 607.04, inclusive, of the TSUS,

are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or threat thereof, to the domestic industry producing an article like or directly competitive with the imported article.

The investigation was instituted on August 5, 1975, upon receipt of a petition filed on July 16, 1975, by the Tool and Stainless Steel Industry Committee for Import Relief and the United Steelworkers of America, AFL-CIO.

Public notice of the investigation and hearing were duly given by publishing the original notice in the Federal Register of August 11,

1975 (40 F.R. 33706). On October 3, 1975, the Commission, at the request of the petitioner and for other reasons, amended the scope of the investigation by deleting silicon electrical steel provided for in TSUS items 608.88 and 609.07. Notice of amendment of the scope of the investigation was published in the Federal Register on October 9, 1975 (40 F.R. 47580).

A public hearing in connection with the investigation was conducted from October 28 through October 31, 1975, in the Commission's hearing room in Washington, D.C. All interested parties were afforded an opportunity to be present, to produce evidence, and to be heard. A transcript of the hearing and copies of briefs submitted by interested parties in connection with the investigation are attached.

The information contained in this report was obtained from fieldwork, from questionnaires sent to domestic manufacturers, importers, and distributors, and from the Commission's files, other Government agencies, and evidence presented at the hearing and in briefs filed by interested parties.

Determinations, Findings, and Recommendations
of the Commission

On the basis of its investigation, the Commission determines 1/ that bars; wire rods; and plates, sheets and strip, not cut, not pressed, and not stamped to nonrectangular shape; all the foregoing of stainless steel or alloy tool steel, provided for in items 608.52, 608.76, 608.78, 608.85, 608.88, 609.06, 609.07, and 609.08 of the Tariff Schedules of the United States, are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or threat thereof, 2/3/ to the domestic industry or industries producing articles like or directly competitive with the imported articles.

The Commission (Commissioner Parker abstaining) unanimously determines that ingots, blooms, billets, slabs, and sheet bars of stainless steel or alloy tool steel, provided for in item 608.18 of

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1/ Chairman Leonard and Commissioners Moore and Bedell determine in the affirmative. Vice Chairman Minchew determines in the affirmative with respect to stainless-steel bars and wire rods, and alloy tool steel in all forms and in the negative with respect to stainless-steel plates and sheets and strip. Commissioner Ablondi determines in the negative. Commissioner Parker abstained.

2/ Chairman Leonard determines serious injury with respect to the listed articles other than stainless-steel plate, for which he determines threat of serious injury; he does not make a determination with respect to the threat of serious injury on articles other than stainless-steel plate, as he considers that a determination of threat of serious injury is unnecessary in view of his determination of serious injury.

3/ Vice Chairman Minchew determines serious injury with respect to stainless-steel bars and wire rods, and alloy tool steel in all forms; he does not make a determination with respect to the threat of serious injury, as he considers that a determination of threat of serious injury is unnecessary in view of his determination of serious injury.

the Tariff Schedules of the United States, are not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or threat thereof, to the domestic industry producing articles like of directly competitive with the imported articles.

Findings and recommendations

The Commission (Commissioners Leonard, Minchew, Moore, and Bedell) finds that--

(1) the quantitative limitations hereinafter specified are necessary to prevent or remedy such injury;

(2) whenever, in calendar year 1976, or any calendar year thereafter up to and including 1980, the respective aggregate quantity specified below for one of the specified classes of articles has been entered, no article in such class may be entered during the remainder of such calendar year:

(In short tons)

| Calendar year | Stainless steel | | | | Alloy tool steel |
|---|---|---|---|---|---|
| | Sheet and strip | Plate | Bar | Rod | |
| 1976 | 79,000 | 13,000 | 19,600 | 16,000 | 18,400 |
| 1977-80 | An amount for each calendar year equivalent to the following percentages of apparent U.S. consumption for the preceding calendar year, but not less than the quantities specified: | | | | |
| | 13% | 15% | 13% | 52% | 18% |
| | 73,100 | 11,900 | 19,600 | 15,900 | 18,400 |

(3) the minimum quantities specified in (2), above, for calendar years 1977 to 1980, inclusive, are the average annual imports for each of the specified classes of articles adjusted upward to the nearest 100 short tons for the calendar years 1970 to 1974, inclusive,

which period is the most recent period which is determined is representative of imports of each such class of articles;

(4) no more than 60 percent of each of the respective aggregate quantities specified in (2), above, for each class (determined from the specified percentages where appropriate) may be entered during the first 6 months of any calendar year;

(5) in order to provide for an equitable distribution of the imports among supplying countries, each of the respective aggregate quantities specified in (2), above for each class of articles, (determined from the specified percentages where appropriate) should be allocated by product group among supplying countries on the basis of their average annual historical market shares during the period 1972 to 1974, inclusive, and should any portion of a supplying country's allocated quota share remain unused at the end of the quota year, that country's subsequent allocation should be reduced to that extent and that amount should be apportioned among all other supplying countries; and

(6) on or before December 1 of each of the calendar years 1976 to 1979, inclusive, the United States International Trade Commission should determine and report to the President the estimated apparent United States consumption of each of the respective classes of quota articles in (2), above, for such calendar year; and on or before April 1 of each of the calendar years 1977 to 1980, inclusive, the United States International Trade Commission should determine and report to the President the apparent United States consumption of each of the respective quota articles in (2), above, during the preceding calendar year.

The Commission would keep itself informed about conditions of trade in the articles subject to the foregoing quotas, and, if it appears that conditions exist that may require that any of the quotas should be increased or terminated, it would promptly initiate an investigation and hold a hearing and would report the results thereof to the President in accordance with the review procedures established by section 203(i) of the Trade Act.

Commissioner Ablondi--

Having made a negative determination, I abstain from any recommendation of remedy.

Affirmative Views of Commissioner George Moore and
Commissioner Catherine Bedell

On July 16, 1975, the United States International Trade Commission received a petition filed by the Tool and Stainless Steel Industry Committee for Import Relief and the United Steelworkers of America, AFL-CIO, requesting an investigation under section 201 of the Trade Act of 1974 with respect to imports of stainless steel and alloy tool steel. On August 5, 1975, the Commission instituted an investigation to determine whether ingots, blooms, billets, slabs and sheet bars; bars; wire rods; and plates, sheets and strip, not cut, not pressed, and not stamped to nonrectangular shape; all the foregoing of stainless steel and alloy tool steel, provided for in items 608.18, 608.52, 608.76, 608.78, 608.85, 608.88, 609.06, 609.07, and 609.08 of the Tariff Schedules of the United States (TSUS), are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing articles like or directly competitive with such imported articles.

The Trade Act of 1974 requires that each of the following conditions be met before an affirmative determination can be made:

(1) There are increased imports (either actual or relative to domestic production) of an article into the United States;

(2) A domestic industry producing an article like or directly competitive with the imported article is seriously injured, or threatened with serious injury; and

(3) Such increased imports of an article are a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article.

Determination

After considering the evidence obtained by the Commission in this investigation, we have determined that stainless steel and alloy tool steel classified under TSUS items 608.52, 608.76, 608.78, 608.85, 608.88, 609.06, 609.07, and 609.08 are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing like or directly competitive articles. Further, we have determined that the ingots, blooms, billets, slabs, and sheet bars of stainless steel or alloy tool steel classified under TSUS item 608.18 are not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing like or directly competitive articles.

The domestic industry

In our opinion the domestic industry which is seriously injured, or threatened with serious injury, consists of the facilities in the United States devoted to the production of (1) stainless steel sheet and strip, (2) stainless steel plate, (3) stainless steel bar and rod, and (4) alloy tool steel. Most of the firms in this domestic industry produce a variety of stainless and tool steel products, often in the same plant complex. Within a plant complex, there is a flexibility of product mix, a common technological and metallurgical base, and common melt facilities. About two-thirds of the total cost of any of the finished product forms is incurred in the production of semifinished forms.

Increased imports.--The requirement that there be an increase in imports either actual or relative to domestic production, is satisfied when the increase is in absolute terms or when the level of imports is increasing relative to domestic production.

We consider this requirement satisfied because imports increased between 1964 and 1975. We have used this time frame to avoid a determination based solely on a time period in which abnormal economic conditions existed. For example, the time period 1968-74 was not only one of unusual market conditions, but one in which unique governmental actions distorted stainless steel and alloy tool steel import levels. During this period the domestic industry was adversely affected by the Voluntary Restraint Agreement (VRA) and its subsequent changes, a worldwide nickel strike, two recessions, and domestic price controls.

Since 1964, total imports of stainless steel and alloy tool steel 1/ have tripled, imports of stainless sheets and strip have more than doubled; and other stainless steel and alloy tool steel articles have increased threefold to tenfold.

The act also states that the Commission should examine whether imports increased relative to domestic production. Imports increased from 116,000 tons in 1973 to 151,000 tons in 1974. During January-September 1975, imports increased to 120,000 tons, compared

1/ Excluding the semifinished products imported under TSUS item 608.18.

with 95,000 tons entered during the corresponding period in 1974. The ratio of imports to U.S. production has more than doubled, rising from 9.9 percent in 1973 to 23.1 percent during the most recent period, January-September 1975. Facts developed during the Commission's investigation indicate that imports will continue their upward trend.

Serious injury.--Section 201(b)(2)(A) of the Trade Act provides guidelines with respect to the factors to be considered in determining whether the domestic industry is seriously injured or is threatened with serious injury. The Commission shall consider, among other economic factors, the significant idling of productive facilities in the industry, significant unemployment or underemployment within the industry, and the inability of a significant number of firms to operate at a reasonable level of profit.

With respect to the significant idling of productive facilities in the domestic industry, operating levels of domestic producers were low throughout most of the period. The average levels of capacity utilization during this period, even including the artifically high levels of 1974 and part of 1973, were only 57 percent for plates, sheets, and strip and 69 percent for both alloy tool steel and stainless steel bars and rods. In 1975, domestic mills operated at extremely low levels, averaging about 40 percent for all stainless steel and alloy tool steel articles. In this capital-intensive industry, the loss of economies of scale at such a low level of operation raises unit costs to unprofitable levels. Thus, the injury to the domestic industry from the idling of its productive facilities is doubly serious.

Unemployment or underemployment in the domestic industry is another indicator of the injury suffered by the domestic industry. Employment was depressed throughout most of the 1970's. In 1975 the level of employment had dropped 15 percent below that of 1970.

The domestic industry has been unable to sustain a reasonable level of profits. Throughout most of the period, the ratio of net operating profits to net sales was 4 percent or less. In several product groups, e.g., sheet and strip, bar and rod, and alloy tool steel, producers sustained losses. These low profit levels inhibited capital expenditures to expand capacity and hampered long-term planning.

The domestic industry is threatened with serious injury because importers' inventories are high, import prices are very low, unused capacity abroad is large, and recovery from the recession abroad is lagging behind that of the United States.

We have concluded, therefore, that the domestic industry is seriously injured or threatened with serious injury.

Substantial cause.--With respect to the final critical issue, i.e., whether increased imports of stainless steel and alloy tool steel are a substantial cause of serious injury to the domestic industry, sections 201(b)(2)(C) 1/ and 201(b)(4) 2/ of the act appear to be most significant. Under the first of these provisions, the Commission shall evaluate the words "substantial cause" in terms of whether there was an

1/ Section 201(b)(2)(C) provides: "with respect to substantial cause, an increase in imports (either actual or relative to domestic production) and a decline in the proportion of the domestic market supplied by domestic producers."

2/ Section 201(b)(4) provides: "For purposes of this section, the term 'substantial cause' means a cause which is important and not less than any other cause."

increase in imports (either actual or relative to domestic production) and a decline in the proportion of the domestic market supplied by domestic producers.

Imports of stainless steel and alloy tool steel increased from about 50,000 tons in 1964 to 151,000 tons in 1974. During January-September 1975, imports increased to 120,000 tons, compared with 95,000 tons in the corresponding period of 1974. Between 1973 and the present, the share of the U.S. market supplied by imports doubled and the share supplied by the U.S. producers fell from 90 percent to 80 percent.

The high level of imports in the years 1970-71, when the ratio of imports to U.S. consumption was in excess of 20 percent, restrained the growth of domestic shipments, resulting in lower levels of capacity utilization and correspondingly lower prices and profits. Only after the VRA imposed specific tonnage limitations on stainless steel and alloy tool steel did imports fall and domestic production rise. The prolonged low levels of net operating profits (1970-72) were briefly interrupted by artificially higher levels of production and profitability (1973 and part of 1974). During the latter part of 1974 and intensifying in 1975, imports soared, domestic shipments plummeted, and profits declined precipitously.

Increased imports as a substantial cause of serious injury suffered by the domestic producers is supported by the overall price pattern since 1970. Low import prices in the early 1970's depressed and suppressed domestic prices and, consequently, profits. Not until 1973, when worldwide demand increased and import price pressure lessened in the U.S. market, did domestic prices increase appreciably. This unusual high level of world demand, which caused importers to switch to more

attractive markets, was the principal reason that domestic producers felt a temporary respite from import-price pressure during 1973 and part of 1974. Intense import-price pressure reappeared in late 1974 and became more serious in January-September 1975. Lost sales and a sharp decline in market share cut domestic shipments and profits sharply.

Under the second provision cited above, the Commission must measure the words "substantial cause" in terms of whether increased imports were a cause which is important and not less than any other cause.

With respect to whether increased imports were a cause which was important and not less than any other cause of serious injury to the domestic industry, the attached report of the Commission shows that the two most important causes responsible for the serious injury to the domestic industry are increased imports and the recent recession. Based on the evidence available to the Commission, we have concluded that increased imports are an important cause of injury and not less in importance than the recession.

Therefore, the statutory criteria having been met, in our opinion, an affirmative determination is required in this investigation. Also, it is our view that relief should be granted to the domestic industry in the form of import restrictions based on a ratio of imports to apparent consumption during an appropriate representative period which we consider to be 1970-74. Our finding with respect to the relief necessary to prevent or remedy the injury is set forth under Findings and recommendations appearing on page 4 of this Report.

Views of Chairman Will E. Leonard

Determination and finding

Having reviewed the evidence gathered by the United States International Trade Commission (Commission) in the course of this investigation on stainless steel and alloy tool steel (Investigation No. TA-201-5), I determine that the criteria as set forth in section 201(b)(1) of the Trade Act of 1974 (Trade Act) for an industry to be eligible for relief from imports have been met with respect to certain of the imports that are the subject of this investigation. 1/ Specifically, I determine that articles which are the subject of this investigation, except stainless-steel plates, and ingots, blooms, billets, slabs, and sheet bars of stainless steel or alloy tool steel, are being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the respective domestic industries producing articles like or directly competitive with such imported articles. I determine that stainless-steel plates that are the subject of this investigation are being imported into the United States in such increased quantities

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1/ For a domestic industry to be eligible for import relief (which as used in this statement of views includes import restraints as well as adjustment assistance), the Trade Act essentially requires that three identifiable criteria be met:

(1) Imports of the articles concerned must be entering in increased quantities.
(2) The domestic industry producing articles like or directly competitive with the imported articles must be experiencing serious injury, or the threat thereof.
(3) The increased imports referred to in 1 above must be a substantial cause of the injury, or threat thereof, referred to in 2 above.

as to be a substantial cause of the threat of serious injury to the domestic industry producing a like or directly competitive article. I determine that ingots, blooms, billets, slabs, and sheet bars that are the subject of this investigation are not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing a like or directly competitive article. Further, I find, pursuant to section 201(d)(1) of the Trade Act, that import restrictions as set forth later in these views are necessary to remedy this injury.

Domestic industries

In considering whether increased imports are a substantial cause of serious injury, or the threat thereof, to the domestic industry, it is first appropriate to determine what is "the domestic industry" which may be suffering or threatened with the requisite injury. The Trade Act does not expressly define the term "domestic industry". Rather, it provides guidelines and permits the Commission to use its best judgment in light of those guidelines and the relevant economic factors present in a given case. Thus, section 201(b)(1) provides that the domestic industry produces "an article like or directly competitive with the imported article." And section 201(b)(3) provides that--

> For purposes of paragraph (1), in determining the domestic industry producing an article like or directly competitive with an imported article, the Commission--
>
> (A) may, in the case of a domestic producer which also imports, treat as part of such domestic industry only its domestic production,

> (B) may, in the case of a domestic producer which produces more than one article, treat as part of such domestic industry only that portion or subdivision of the producer which produces the like or directly competitive article, and
>
> (C) may, in the case of one or more domestic producers, who produce a like or directly competitive article in a major geographic area of the United States and whose production facilities in such area for such article constitute a substantial portion of the domestic industry in the United States and primarily serve the market in such area, and where the imports are concentrated in such area, treat as such domestic industry only that segment of the production located in such area.

The Commission's notice of investigation, which is published in the Federal Register, defines the imported articles covered within the scope of the investigation. The Commission subsequently determines what constitutes the "domestic industry" after it has gathered the relevant facts in the course of its investigation. As noted above, the question of what a Commissioner considers to be the domestic industry is discretionary and is based on the statutory guidelines and the relevant economic facts of the investigation. Thus, in certain investigations it may be appropriate to carve out two or more domestic industries from the universe of domestic production of articles like or directly competitive with the imported articles. 1/

Economic factors in the present investigation strongly support the conclusion that there are four distinct groups of facilities producing

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1/ Precedent for this carving out of distinct industries can be found in earlier Commission investigations. See, for example, my views in Asparagus: Report to the President on Investigation No. TA-201-4 . . ., USITC Publication 755, January 1976, pp. 7-8; and Bolts, Nuts, and Screws of Iron or Steel: Report to the President on Investigation No. TA-201-2 . . ., USITC Publication 747, November 1975, pp. 5-8.

articles like or directly competitive with the imported articles which comprise four separate industries that need to be identified for purposes of explaining my determination. The first group, which would constitute one domestic industry, consists of the facilities for the production of stainless-steel sheet and strip. The second group, which constitutes a second industry, consists of the facilities for the production of stainless-steel plate. The third group, and third industry, consists of the facilities for the production of stainless-steel bar and wire rod. And the fourth group, and fourth industry, consists of the facilities for the production of alloy tool steel.

In drawing this distinction, it is noted that each of these groups of products is generally produced in separate facilities on different equipment using different technology and by different workers. One cannot, for example, produce bar or wire rod in a sheet rolling mill; one cannot economically, except perhaps in the case of a few overlapping sizes, produce sheet or strip in a plate rolling mill; and one cannot, except after making an extraordinarily large investment, convert a plate mill, for example, to a sheet and strip mill. Alloy tool steel products are for the most part not produced in establishments which produce stainless-steel products. Further, the vast majority of alloy tool steel production is in the form of bars and rods, which of course are not produced in sheet, strip, or plate mills.

Each of the product groups mentioned above also serves different end users. A manufacturer of heavy duty industrial tools purchases alloy tool steel bar or wire rod; he may purchase no stainless at all.

And likewise, a manufacturer of stainless-steel flatware would not manufacture flatware from alloy tool steel because such steel lacks the malleability and corrosion resistance of stainless steel. And finally, no drawer of stainless-steel wire would find it economically practicable to draw wire from stainless-steel sheet rather than wire rod.

Application of the information developed to the statutory criteria with respect to each separate industry

Having concluded that there are four distinct domestic industries, it is now necessary to examine whether increased imports of articles that are the subject of this investigation are a substantial cause of serious injury, or the threat thereof, to each such industry. In doing this, only those imported articles which are likely to have meaningful impact on the industry being considered have been examined. For example, with respect to the domestic industry producing stainless-steel sheet and strip, imports of stainless-steel sheet and strip are examined, as imports of stainless-steel plate, rods, and bars, and alloy tool steel have no measurable impact on such an industry and thus could not be a substantial cause of injury, or the threat thereof, to such an industry.

Before proceeding further, it should be noted that I have determined that the subject imports of ingots, blooms, billets, slabs, and sheet bars are not entering the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing a like or directly competitive article. This negative determination is required because the first criterion of the statute noted previously, that the article is being imported into the

United States in such increased quantities, is not satisfied. 1/ Imports of the subject articles were 39,600 tons in 1968 and decreased irregularly to 12,159 tons in 1974. Preliminary figures for 1975 indicate a continued absolute decrease in imports. Further, the ratio (in percent) of imports of such articles to U.S. consumption has also declined from approximately 47 percent in 1970 to 24 percent in 1974. It is also noted that such articles are not produced by the four industries identified above, and this the imports of such articles would have a small impact, if any, upon such domestic industries. Therefore, such imports will not be treated further in this statement.

Stainless-steel sheet and strip industry

Increased imports.--Section 201(b)(1) of the Trade Act provides in part that in order for an industry to be eligible for import relief there must have occurred an increase in imports of the articles being considered. Imports have increased where the increase is in "actual" or absolute terms or where the increase is relative to domestic production or consumption. In determining whether imports have increased, it is necessary to find the trend in import levels over a period of years which presents a realistic picture of activity in importation and of increasing or decreasing trends. The report of the U.S. Senate

1/ For a discussion of the meaning of this criterion, see the text, infra.

Committee on Finance on the bill which became the Trade Act provides (at p. 120):

> The increase in imports referred to would generally be such increases as have occurred since the effectiveness of the most recent trade agreement concessions proclaimed by the President, i.e., as of now, the effectiveness of the Kennedy Round concessions beginning in 1968. 1/

Such language permits the Commission at the present time to go back to 1968 and, for compelling reasons, to go back before 1968, to determine whether imports have been increasing. 2/

The evidence in this investigation presents compelling reasons for considering import levels in years immediately prior to 1968 in determining the import trend. Not to do so would permit distortions in import levels in several recent years caused by non-market forces to mask what is believed to be the realistic trend in the levels of importation of stainless-steel sheet and strip. The Voluntary Restraint Agreement (VRA) on steel exports, in effect in two phases during the years 1969 to 1974 with respect to steel exports to the United States from certain foreign steel-exporting countries, produced certain pronounced distortions in stainless-steel sheet and strip imports during the post-1968 period. The first restraint agreement, in effect during the years 1969-71, set one tonnage limit for all types of

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1/ See U.S. Senate, Committee on Finance, Trade Reform Act of 1974, S. Rept. No. 93-1298 (93d Cong., 2d sess.) 1974 (hereinafter Finance Report).

2/ For further discussion of the meaning of the term "increased imports," and, among other things, the relevant time period, see the Statement of Reasons of Chairman Leonard in Birch Plywood Doorskins; Report to the President on Investigation No. TA-201-1, . . ., USITC Publication 743, October 1975, pp. 9-12.

basic steel products without regard to type or value of product. 1/ This first agreement led to pronounced shifts in the product mix of exports from the nations party to the informal agreement as they shifted within their total tonnage limitation from exporting lower priced carbon steels to exporting higher valued specialty steels, including stainless-steel sheet and strip. The second phase of the VRA, in effect between 1972 and 1974, sought to correct certain of the distortions of the first phase by establishing specific limitations on exports from the participating countries of specific types of steel products. Specific tonnage limitations were placed on stainless-steel products and alloy tool steel products, among others. 2/ However, this new approach to the import problem produced new distortions in export mix among products within each category. Because exporting nations party to the agreement desired to stay within, yet make the best use of, tonnage limitations, the product mix again shifted away from the lower valued per ton products like stainless-steel sheet and strip to higher valued per ton products like stainless bar and wire rod. 3/

Thus, imports of stainless-steel sheet and strip more than doubled during the years 1964 to 1968, increasing from 31,500 tons in 1964 to 81,300 tons in 1968. And imports of stainless sheet and strip continued to rise sharply during the period 1969-71, stimulated rather than restrained by the first phase of the VRA, as noted above. During the period

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1/ The European Economic Community and Japan were parties to this first informal agreement.

2/ The United Kingdom, Japan, and the European Economic Community were parties to this second informal agreement.

3/ In addition to the VRA, other causes of nonmarket distortions tending to reduce the level of imports and mask a realistic trend included several investigations in which less-than-fair-value sales of stainless steel were found by the Department of the Treasury, a worldwide nickel strike, two recessions, two devaluations of the U.S. dollar, and domestic price controls.

1969-71, imports of stainless sheet and strip averaged 91,500 tons. Imports of stainless sheet and strip were temporarily restrained during the second phase of the VRA, when specific voluntary limitations were in effect with respect to total tonnage on all stainless products. Stainless sheet and strip imports averaged 56,400 tons during the 1972-74 period. With the termination of the VRA in 1974, imports of stainless sheet and strip once again resumed their upward trend. During the period January-September 1975, imports of sheet and strip increased by 10,580 tons over the corresponding period in 1974. An import trend line drawn for the period 1964-75 clearly shows an upward slope, notwithstanding the distortions for the years 1969-74, when the VRA was in effect. This is a realistic trend in levels of imports and satisfies the statutory requirement that there be increased imports.

Serious injury.--The second criterion, the "serious injury, or threat thereof", criterion, is expressed in the disjunctive--that is, the second criterion is satisfied if a finding of either "serious injury" or "threat" of serious injury is made. Because I have found "serious injury" with respect to this industry, I shall restrict my discussion here to "serious injury," and I shall not treat with the "threat" of serious injury. 1/

The Trade Act provides no definition of the term "serious injury", but rather, as in the case of the term "domestic industry", provides guidelines in the form of certain "economic factors" which the Commission should take into account. In making a determination with respect to

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1/ For a more detailed discussion of the concept of "serious injury" and the concept of "threat", see the views of Chairman Leonard in Bolts, Nuts, and Screws of Iron or Steel, supra note 1, p. 16, at pp. 9-12.

"serious injury," section 201(b)(2) states that the Commission should take into account "all economic factors which it considers relevant, including (but not limited to) . . . the significant idling of productive facilities in the industry, the inability of a significant number of firms to operate at a reasonable level of profit, and significant unemployment or underemployment within the industry . . . ." The modifier "significant" used in describing each of the enumerated factors implies that the idling of productive facilities, and so forth, must be of some important degree. The presence of some or all of these factors does not automatically make an industry eligible for import relief. 1/ The Commission is to consider all of the factors it considers relevant and make its judgment thereon. 2/ The weight to be given to a particular factor as an indicator of the state of an industry varies on an investigation-by-investigation basis, as certain factors are more meaningful indicators in one industry because of the structure and economics of that industry than they may be with respect to another industry. Furthermore, section 201(b)(1), in using the present tense, contemplates that the import-related serious injury be new and continuing "present" injury, as opposed to "old" injury. The statute sets no guidelines for determining the relevant "present" period of injury. It is my view that "present" injury must be found by examining a time span which discounts brief and transitory episodes in the per formance of the domestic industry and establishes a realistic performance for the industry in the present.

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1/ See the report of the U.S. House of Representatives, Committee on Ways and Means, Trade Reform Act of 1973, H. Rept. No. 93-571 (93d Cong., 1st sess.), 1973, at p. 47 (hereinafter Ways and Means Committee Report); see also the Finance Report, supra note 1, p. 20, at p. 121.

2/ Ways and Means Committee Report, supra, at p. 47.

The evidence shows that currently there is a significant idling of productive capacity in the stainless sheet and strip industry. For most of the time period 1970-74, the utilized capacity of the domestic industry to roll stainless-steel sheet and strip was at or below 50 percent of total capacity. Capacity utilization in this industry reached a moderately profitable level in 1973 and was highest in 1974, at 76 percent, partly as a result of an exaggerated level of demand from shortage-induced scare buying. During the most recent period, January-September 1975, the average level of capacity utilization of the domestic stainless sheet and strip industry fell below 40 percent. This underutilization of capacity greatly reduces the possibility of receiving the benefit of economies of scale.

The evidence shows that a significant number of firms in the industry are unable to operate their stainless-steel sheet and strip facilities at a reasonable level of profit. The ratio of net operating profits to net sales for the stainless-sheet and strip industry has been lower--often far lower--than the ratio for all manufacturing firms for each of the five most recent years. The industry's ratio of net operating profits to net sales was less than 5 percent in 1970 and 1972 and less than 3 percent in 1971. Despite somewhat better ratios in 1973 and 1974, profits have turned into losses in 1975 at a loss ratio of 1.7 percent. Continued low profit ratio levels--and losses--give rise to the conclusion that such a capital-intensive industry as the stainless-steel sheet and strip industry is in dire straits. It will remain so as long as needed replacement c capital and expansion of facilities to produce for increased demand and to achieve economies is made difficult if not impossible.

Levels of employment in the domestic stainless sheet and strip industry reflect the low levels of capacity utilization during the period 1970-72. Although employment levels improved during 1973 and 1974, the level of employment in the domestic industry producing stainless sheet and strip in 1975 was 57 percent lower than in 1974 and below the 1970 employment level.

Substantial cause.--A finding that increased imports are "a substantial cause" of the serious injury, or threat thereof, is necessary in order to satisfy the third criterion set out above. Section 201(b)(4) of the Trade Act defines the term "substantial cause" to mean "a cause which is important and not less than any other cause." It thus provides that a dual test must be met--that imports must be both an "important" cause of serious injury and a cause "not less than any other cause." Where increased imports are just one of many causes of equal weight, it would be unlikely that they would constitute an "important" cause, but where imports are one of two factors of equal weight, they would constitute an "important" cause. 1/ The test of "not less than any other cause" is satisfied if imports are one of several equal causes of injury and no one cause is more important than imports. 2/ But the test is not satisfied if there is a cause of injury more important than imports. 3/ Furthermore, section 201(b)(2)(C) of the Trade Act provides that the Commission, in determining "substantial cause", take into account all relevant economic factors "including (but not limited to). . . an increase in imports (either actual or relative to domestic production) and a decline in the proportion of the domestic market supplied by domestic producers."

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1/ See the Ways and Means Committee Report, supra note 1, p. 23, at pp. 46-47, and the Finance Committee Report, supra note 1, p. 20, at pp. 120-121.

2/ See the Ways and Means Committee Report, supra note 1, p. 23, at pp. 46-47.

3/ Id, at p. 46.

In thus explaining the meaning of "substantial cause," the Congress did not intend to set rigid, impossible standards for the Commission to meet in order to determine whether increased imports were indeed a "substantial cause" of the requisite injury or threat thereof. The Finance Committee Report 1/ states (at pp. 120-121):

> The Committee recognizes that 'weighing' causes in a dynamic economy is not always possible. It is not intended that a mathematical test be applied by the Commission. The Commissioners will have to assure themselves that imports represent a substantial cause or threat of injury, and not just one of a multitude of equal causes or threats of injury. It is not intended that the escape clause criteria go from one extreme of excessive rigidity to complete laxity. An industry must be seriously injured or threatened by an absolute increase in imports, and the imports must be deemed to be a substantial cause of the injury before an affirmative determination should be made.

In the present investigation, evidence shows imports to be a very important cause of injury, and as important a cause of serious injury as the recession, which I consider the only other possible significant cause of injury. Imports have taken an increased share of a domestic stainless sheet and strip market considerably reduced by the effects of the recession, going from a ratio of approximately 6 percent in 1973 to almost 16 percent during January-September 1975. During the most recent period, the size of the U.S. market for stainless steel sheet and strip decreased by almost one half, while imports increased by more than 10,000 tons. The cyclical nature of the industry producing these products makes the impact of imports an even more important cause of injury than it would be otherwise.

There is no mathematical formula that will give an answer with respect to substantial cause in this case, but I am sure that the increased imports do represent an important cause of the injury being suffered by the industry and not just one of a multitude of equal causes of such injury. Further, I determine that imports are not less a cause of the injury being suffered than the recession.

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1/ Supra note 1, p. 20.

Stainless-steel plate industry.

The analysis of each criterion set forth above with respect to the stainless-steel sheet and strip industry will not be repeated for the stainless-steel plate industry or succeeding industries, except that the issue of "threat of serious injury", which was not considered previously, but which is necessary for my determination with respect to the stainless-steel plate industry, will be considered. For the most part, the focus will be on the evidence presented which satisfies each of the three criteria for the stainless steel plate industry and succeeding industries.

Increased imports.--Imports of stainless steel plate increased from 800 tons in 1964 to 12,400 tons in 1974. As in the case of stainless steel sheet and strip, the VRA distorted the import trend upward for the period 1969-72 and constrained imports somewhat during 1973-74; for the period 1970-74, the increase was approximately 50 percent, from a little more than 8,000 to more than 12,000 tons. The overall import trend for the period 1964-75 is sharply upward for stainless-steel plate.

Threat of serious injury.--While I am unable to determine that the stainless steel plate industry is seriously injured, the evidence presented supports a finding that such industry is being threatened with serious injury. Section 201(b)(1) of the Trade Act provides no definition of the term "threat" of serious injury. However, similar to the case of the term "serious injury", section 201(b)(2)(B) of the Trade Act states that

the Commission is to take into account in determining threat of serious injury "all economic factors which it considers relevant, including (but not limited to) . . . a decline in sales, a higher and growing inventory, and a downward trend in production, profits, wages, or employment (or increasing underemployment) in the domestic industry concerned . . ." Ways and Means Committee Report on the bill which became the Trade Act states that a "threat" of serious injury exists "when serious injury, although not yet existing, is imminent." 1/ The Finance Committee Report cited above supports this interpretation and adds:

> The existence of any of these factors such as the growth in inventory would not in itself be relevant to the threat of injury from imports if it resulted from conditions unrelated to imports. Such conditions could arise from a variety of other causes, such as changes in technology or in consumer tastes, domestic competition from substitute products, plant obsolescence, or poor management. It is the intention of the Committee that the threat of serious injury exists when serious injury, although not yet existing, is clearly imminent if imports trends continued unabated. 2/

The cornerstone of the threat of serious injury is the strong upward trend in imports. Imports of stainless-steel plate increased from a mere 800 tons in 1964 to 5,200 tons in 1968. During the post-Kennedy Round period, imports more than doubled, climbing from 7,200 tons in 1969 to 17,100 tons in 1972. Imports declined temporarily in 1973 and 1974. During January-September 1975, imports were more than double those in the like period of 1974. In 1975, imports probably were at an all time high. The trend of increased imports is likely to continue.

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1/ Ways and Means Committee Report, supra note 1, p. 23, at p. 47.
2/ Finance Committee Report, supra note 1, p. 20, at p. 121.

The threat of serious injury is further reflected in the recent decreasing market share of domestic producers. The domestic producers' share of the U.S. market dropped from 94 percent during January-September 1974 to 86 percent during the like period of 1975.

The prices of imported stainless-steel plate are underselling the like domestic product by an ever-increasing margin. The price gap widened from about 13 percent in October-December 1974 to about 20 percent in July-September 1975.

Although the demand for plate has weakened in recent months, the plate market has remained the strongest in stainless steel. Consequently, it is a prime target for imports. From January-September 1974 to January-September 1975, lost sales are evidenced by a decline in U.S. producers' shipments of 14,000 tons while imports increased 7,000 tons.

The level of inventory of stainless-steel plate in the hands of importers (Oct. 1, 1975) was more than three times the average level of 1972-74. This importer inventory overhang poses a threat of serious injury to the domestic stainless-steel-plate industry.

There is ample evidence of a large amount of unused capacity in foreign stainless steel mills as well as large investments underway in new production capacity for stainless steel, including stainless-steel plate. These facts, plus the growing dependence of foreign mills on exports in order to sustain production, especially as their recovery from recession is linked to a faster recovery in the U.S. economy, are strong indicators

of the increased imports and resultant threat of injury to the domestic industry.

Substantial cause.--The above evidence shows increased imports of stainless-steel plate to be an important cause of the threat of serious injury to the domestic stainless-plate industry and a cause not less than any other. A strong upward trend in stainless-plate imports is clearly apparent. Imported stainless-steel plate is underselling domestic plate by wide margins. Imports are taking a larger share of a shrinking market in the most recent time period.

Stainless steel bar and wire rod industry

Increased imports.--The upward trend in imports of stainless-steel bars and rods is clear whether measured over the time period 1964-74 or since the Kennedy Round (1968-74). Imports increased from 10,600 tons in 1964 to 50,000 tons in 1974. And imports have increased by nearly 20,000 tons since the Kennedy Round and despite the VRA. The trend lines for imports of stainless-steel bar and wire rod during 1964-74 and the post-Kennedy Round years 1968-74 without a doubt show an upward slope.

Serious injury.--The domestic industry producing stainless bar and wire rod operated at only 50 to 60 percent of capacity during 3 of the 5 years beginning in 1970. In 1975, the industry's level of capacity utilization fell to 40 percent of total capacity. Correspondingly, employment in the domestic industry producing stainless bars and rods was depressed in the early 1970's below the 1970 level, increased in 1973 and 1974, but fell by 58 percent in 1975. Total industry employment in 1975 is the lowest since 1970. Further, the domestic producers

of stainless-steel bars and rods have suffered financial losses in 4 of the last 5 full years. During 1975, the ratio of net operating profit to net sales was 0.2 percent for stainless rod producers and only 2.4 percent for stainless bar producers.

Substantial cause.--Imports of stainless-steel bars increased without interruption during the period 1964-74. During this same time period U.S. apparent consumption decreased 10,000 tons based on a comparison of the average level of consumption for the period 1970-74 and that for 1965-69. Imports of stainless-steel bars, by the same comparison, increased by 10,000 tons. Thus, the imports' share of a smaller market has increased. This increase is magnified in the most recent period, January-September 1975. Domestic shipments of stainless-steel bars declined from about 128,000 tons, in January-September 1974 to about 83,000 tons in the like period of 1975. Imports, in contrast, increased almost 5,000 tons, and the imports' share of apparent consumption increased from 13 percent to 23 percent.

A similar comparison of the two time periods indicates that while average consumption of stainless-steel rod has increased by 7,200 tons, imports have captured 38 percent of that market growth, increasing by 2,700 tons. These patterns are stark evidence that imports are an important cause of the serious injury to the domestic bars and rods industry and are a cause certainly not less important than any other cause.

Alloy tool steel industry

With respect to the domestic industry, which consists of the domestic facilities for the production of alloy tool steel, I generally concur with

the views and analysis of Vice Chairman Minchew with respect to the application of the information developed during this investigation to the three criteria which must be met in order to render an affirmative determination.

I would further note, however, that throughout most of the period of 1970-74, the levels of capacity utilization of the domestic alloy tool steel industry were at or near 55 percent, substantially as a result of increased import penetration. This trend was interrupted briefly by profitable levels of capacity utilization. In 1975, the idling of facilities was more severe than ever before, falling below a capacity utilization level of 50 percent. Further, employment levels were depressed for 3 of the last 5 years and failed to reach the 1970 level of employment even during the period of strongest demand in 1974. Unemployment and underemployment increased sharply in 1975.

Finding with respect to import relief

Section 201(d)(1) of the Trade Act provides, in part, that if the Commission finds with respect to any article, as a result of its investigation, the serious injury or threat thereof described in section 201(d)(1), it shall --

> (A) find the amount of the increase in, or imposition of, any duty or import restriction on such article which is necessary to prevent or remedy such injury, or
> (B) if it determines that adjustment assistance under chapters 2, 3, and 4 can effectively remedy such injury, recommend the provision of such assistance. . . .

Because the remedies provided in (A) and (B), above, are expressed in the disjunctive, the Commission is to find with respect to (A) or recommend with respect to (B), but not both.

I find that variable quantitative import restrictions, as set forth previously in the finding of the Commission with respect to import relief, are necessary to remedy the serious injury being suffered by the domestic industries producing stainless-steel sheet and strip, bar and wire rod, and alloy tool steel and, further, are necessary to prevent serious injury to the domestic stainless-steel-plate industry.

I find that the most recent period which is representative of imports of these articles is the period 1970-74. This period includes the peaks and troughs of one complete business cycle. Such quotas, which would be established on a product-by-product basis, would remain in effect for 5 years beginning with 1976, and they would be adjusted upward during the years 1977-80, as specified, as domestic consumption changes.

No more than 60 percent of annual quantities specified for each class could be entered during the first 6 months of any calendar year. Allocations by product group among supplying countries would be based on their historical market shares during the period 1972-74. This period was selected to reduce the likelihood of distortions from market disruption and to reflect the most recent shifts in source country patterns. And should any portion of a supplying country's allocated quota share remain unused at the end of the quota year, that country's subsequent allocation would be reduced to that extent, and that amount would be apportioned among all other supplying countries.

The Commission would keep itself informed about conditions of trade in the articles subject to the quotas and, if it appears that conditions

exist that may require that any of the quotas be increased or terminated, would promptly initiate an investigation and hold a hearing and would report the results thereof to the President in accordance with the review procedures established by section 203(i) of the Trade Act.

## Views of Vice Chairman Daniel Minchew

On July 16, 1975, the United States International Trade Commission (Commission) received a petition for import relief filed by the Tool and Stainless Steel Industry Committee and the United Steelworkers of America, AFL-CIO, requesting an investigation under section 201 of the Trade Act of 1974 (Trade Act) with respect to imports of stainless steel and alloy tool steel. On August 5, 1975, the Commission instituted an investigation to determine whether ingots, blooms, billets, slabs, and sheet bars; bars; wire rods; and plates, sheet and strip, not cut, not pressed, and not stamped to nonrectangular shape; all the foregoing of stainless steel and alloy tool steel, provided for in items 608.18, 608.52, 608.76, 608.78, 608.85, 609.06, and 609.08 of the Tariff Schedules of the United States (TSUS), are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing articles like or directly competitive with such imported articles.

Before making an affirmative determination under section 201(b)(1), the Commission must find that all three of the following criteria are met:

(1) that an article is being imported into the United States in increased quantities (such increased imports may be actual or relative to domestic production);

(2) that a domestic industry producing an article like or directly competitive with the imported article is being seriously injured or threated with serious injury; and

> (3) that such increased imports of an article are a substantial cause of the serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported article.

The domestic industries

In determining what constitutes the domestic industry, the Trade Act provides in section 201(b)(3)(B) that the Commission--

> may, in the case of a domestic producer which produces more than one article, treat as part of such domestic industry only that portion or subdivision of the producer which produces the like or directly competitive article,

and the Senate Finance Committee Report 1/ at page 122 states:

> where a corporate entity has several independent operating divisions, and only some of these produce the domestic article in question, the divisions in which the domestic article is not produced may be excluded from the determination of what constitutes the "industry" for the purposes of the Commission investigation and finding.

In this case, it is my view that, for practical purposes, there are four identifiable domestic industries producing articles comparable to the imported articles of commercial significance in this investigation. These industries include the respective domestic facilities involved in the production of--

(1) stainless-steel bars and wire rods;

(2) stainless-steel plates;

(3) stainless-steel sheet and strip, not cut, not pressed, and not stamped to nonrectangular shape; and

(4) alloy tool steel.

1/ Trade Reform Act of 1974: Report of the Committee on Finance . . ., S. Rept. 93-1298 (93d Cong., 2d sess.), 1974.

Each of these industries necessarily includes the producers of the respective ingots, blooms, billets, slabs, and sheet bars from which the bars, wire rods, plates, and sheet and strip are made.

Most of the domestic producers of stainless steel manufacture a narrow product line consisting of only one or two products. Most of them have two manufacturing divisions, one which produces flat-rolled products consisting of stainless-steel plate or sheet and strip, and a bar-and-rod division, which produces either stainless bar and rod or alloy tool steel bar and rod or both. Further, within the flat-rolled division, most producers have chosen to specialize in either plate or sheet and strip. When a company makes plate and also sheet and strip, separate facilities must generally be maintained. I find these two functions to constitute separate industries.

The producers of alloy tool steel bars and rods constitute still another industry different in nature from the stainless steel industries defined above. Alloy tool steel contains different alloys--no nickel and generally very little chromium, but a relatively high carbon content, whereas stainless contains a relatively high chromium content--over 11.5 percent. Alloy tool steel has different end uses--in tools and machinery--than stainless steel. It is generally produced in different establishments and in smaller furnaces than stainless steel. And further, the end-users to whom alloy tool steel is marketed (and approximately two-thirds is marketed to end-users) do not generally use stainless steel. However, I do not propose subdividing the alloy tool steel industry further as I have done for stainless steel because alloy tool steel is produced primarily in rod or bar form in the same establishment.

Determination

After considering the evidence obtained by the Commission in this investigation, I have determined that stainless steel bars and wire rods, and alloy tool steel are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, to the domestic industry producing like or directly competitive articles. Further, I have determined that ingots, blooms, billets, slabs, and sheet bars 1/, stainless steel sheet and strip, not cut, not pressed and not stamped to nonrectangular shape, and stainless steel plate are not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing like or directly competitive articles.

Increased imports

An increase in imports occurs when the increase is "either actual or relative to domestic production" (section 201(b)(2)(C)). Therefore, the Commission can find "increased imports" when the increase is in "actual" or absolute terms or when the level is declining in actual terms, but is increasing relative to domestic production. It is my view that, in the absence of extraordinary circumstances, the Commission should look at the increase in imports resulting from only the most recent trade concessions, so that the injury considered would be a new

1/ Ingots, blooms, billets, slabs, and sheet bars have not been discussed in terms of an industry. Not only have these articles not been imported into the United States in increased quantities, but they are not produced by the four industries we are considering, and could have no impact. For a more complete explanation see the Views of Chairman Leonard in this case.

and continuing injury from increased imports as opposed to an "old" injury. The Senate Finance Committee Report at page 120 states:

> The increase in imports referred to would generally be such increases as have occurred since the effectiveness of the most recent trade-agreement concessions proclaimed by the President, i.e., as of now, the effectiveness of the Kennedy Round concessions beginning in 1968.

In certain circumstances in the past 1/ I have been willing to look at a shorter time frame to determine the trend of increasing imports, as I feel is my prerogative under the statute, but to look back beyond the last trade-agreement concessions would require extraordinary circumstances. In the present case, despite some out-of-the-ordinary occurrences since 1968, I do not feel that these occurrences warrant my looking beyond the 1968 trade-ageeement concessions for purposes of determining increased import trends.

Having discussed my overall views on increased imports, I will address myself to the various industries in turn.

(1) Stainless-steel bar and wire rod

In 1974, imports of stainless-steel bar amounted to 27,892 tons, compared with 12,600 tons in 1968 and 1969. This shows that imports were 121.4 percent higher in 1974 than in 1968 and 1969. Also, imports of stainless-steel bar in January-September 1975 amounted to 23,262 tons, compared with 18,624 tons during the corresponding period of 1974. By all criteria I have examined, there has been an increase in imports of stainless-steel bar.

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1/ See statement of reasons of Vice Chairman Minchew in Birch Plywood Doorskins: Report to the President on Investigation No. TA-201-1 . . ., USITC Publication 743 /October/ 1975.

Annual U.S. imports of stainless-steel rod were 15,900 tons in 1968, declined over the next 4 years to 13,006 tons in 1972, then increased over the next 2 years to 22,069 tons in 1974. The imports in 1974 were 6,169 tons (38.8 percent) higher than the imports in 1968. Imports of stainless-steel rod in January-September 1975 amounted to 15,092 tons, compared with 14,594 during the corresponding period of 1974. The overall trend in the imports of stainless-steel rod shows an increase.

With the above information in mind, I find that imports of stainless-steel bars and wire rods have been increasing in the terms of the statute.

(2) Stainless-steel plate

Annual U.S. imports of stainless-steel plate totaled 5,200 tons in 1968, increased for the next 4 years to 17,116 in 1972, declined in 1973, but increased to 12,351 tons in 1974. The imports in 1974 were 7,151 tons (137.5 percent) higher than imports in 1968. During January-September 1975, imports of plate amounted to 14,046 tons, compared with 6,699 tons during the corresponding period of 1974--an increase of 109.7 percent.

The trend establishes that imports of stainless-steel plate have been increasing in the terms of the statute.

(3) Stainless-steel sheet and strip, not cut, not pressed, and not stamped to nonrectangular shape

Annual U.S. imports of stainless-steel sheet and strip declined from 81,300 tons in 1968 to 78,700 tons in 1969, increased over the next 2 years to 107,188 tons in 1971, declined over the next 2 years to

44,701 tons in 1973, then increased to 64,888 tons in 1974. The imports in 1974 were 16,412 tons or 20.2 percent lower than imports in 1968. Imports of stainless-steel sheet and strip in January-September 1975 were 48,529 tons, compared with 37,948 tons during the corresponding period of 1974. The ratio of U.S. imports to consumption was 21.1 percent in 1970, 20.9 percent in 1971, 10.4 percent in 1972, 6.2 percent in 1973, 7.9 percent in 1974, 6.0 percent in the period from January through September 1974, and 15.6 percent in the corresponding period of 1975.

While in the past I have considered a short period of time in determining an increase in imports, 1/ this consideration was predicated on special circumstances, such as extremely high level of import penetration and a small domestic industry. I do not feel that the facts in this case justify basing a finding of increased imports upon the sharp upturn of imports in the last year. Further, I feel that the overall trend of imports, in both actual and relative terms, is not increasing in terms of the statute. 2/

(4) Alloy tool steel

Annual U.S. imports of alloy tool steel increased from 13,500 tons in 1968 to 17,349 tons in 1970, declined to 12,601 tons in 1971, then

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1/ See statement of reasons of Vice Chairman Minchew in Birch Plywood Doorskins: Report to the President on Investigation No. TA-201-1 . . ., USITC Publication 743, /October/ 1975.

2/ The criterion of increased imports not having been met, it is unnecessary to consider stainless-steel sheet and strip any further. The determination on this article is negative.

increased over the next 3 years to 23,940 tons in 1974. The imports in 1974 were 10,440 tons, or 77.3 percent, higher than imports in 1968. U.S. imports of such alloy tool steel in January-September 1975 amounted to 19,051 tons, compared with 17,052 tons in the corresponding period of 1974.

The overall trend is one of increasing imports of alloy tool steel and I consider the requirements of the statute for increasing imports to be met.

Serious injury or threat of serious injury

Although the Trade Act provides no precise definition of the term "serious injury," some guidelines which the Commission may wish to consider are outlined in section 201(b)(2)(A) of the Trade Act, which provides:

> with respect to serious injury, the significant idling of productive facilities in the industry, the inability of a significant number of firms to operate at a reasonable level of profit, and significant unemployment or underemployment within the industry.

Again, with regard to the question of a threat of serious injury section 201(b)(2)(B) provides:

> . . . a decline in sales, a higher and growing inventory, and a downward trend in production, profits, wages, or employment (or increasing underemployment) in the domestic industry concerned.

These guidelines are not considered to be all inclusive, nor does the existence of any one of them necessarily require an affirmative finding of injury. The requirement is left to the discretion of the Commission.

(1) Stainless-steel bar and wire rod

The domestic industry in which profitability has been lowest over the past 5-year period is that of stainless-steel bar and wire rod. In 1970, the ratio of net operating loss to net sales of U.S. producers of stainless-steel bars was 2.0 percent; in 1971, this loss increased to 2.9 percent. In 1972, the ratio of net operating profit to net sales was 3.0 percent. In 1973 and 1974, the profits were 6.2 and 10.4 percent, respectively. The profit was 2.4 percent in January-September 1975, compared with 10.5 percent in the corresponding period in 1974. Generally, the stainless-steel-bar industry was operating at a level below what would be considered a "reasonable level of profit."

The ratio of net operating profit or loss to net sales for domestic producers of stainless-steel wire rod showed an even worse situation over the past 5 years. In 1970, the ratio of net operating loss to net sales was 16.1 percent. The industry showed continued losses of 20.9 percent in 1971, 8.8 percent in 1972, and 4.8 percent in 1973 before showing a profit of 11.3 percent in 1974. In January-September 1975 the ratio of net operating profit to net sales was 0.2 percent, compared with a ratio of 9.4 percent for the corresponding period of 1974.

The overall situation in the stainless-steel bar and wire rod industry is severe because of these losses or profits below the level which is necessary for proper operation of the industry's facilities. I determine, therefore, that the statutory criterion for serious injury is met, and do not find it necessary to discuss the threat of serious injury to the stainless-steel bar and wire rod industry.

(2) Stainless-steel plate

The ratio of net operating profit or loss to net sales of stainless-steel plate is different from that of bar and rod. The plate industry has not suffered losses, even though, at times, the level of profits has been low. The ratio of net operating profit to net sales of stainless-steel plate in 1970 was 9.1 percent, in 1971 was 4.4 percent, in 1972 was 2.6 percent, in 1973 was 12.0 percent and in 1974 was 17.8 percent. The ratio of profits to sales was 15.2 percent in January-September 1975, compared with 17.2 percent during the corresponding period of 1974.

Overall, it would appear from the evidence before the Commission that the stainless-steel plate industry is not suffering significantly, nor do I see a significant threat of a serious injury to the domestic industry. I determine, therefore, that, in terms of the statute, the stainless-steel plate industry is not being seriously injured, or threatened with serious injury. 1/

(3) Alloy tool steel

The ratio of net operating profit or loss to net sales in the alloy tool steel industry has been less than is necessary for a reasonable level of profit. The ratio in 1970 showed a loss of 1.0 percent, and, in 1971, the ratio of loss was 2.0 percent. The following years showed

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1/ Because the criterion of serious injury or threat of serious injury is not met, it is unnecessary for me to consider the stainless-steel plate industry further.

a profit, but one which may be less than necessary for the health of the industry. The ratio of profit in 1972 was 4.4 percent, in 1973 was 9.4 percent, in 1974 was 10.7 percent, and in the January-September period of 1975 was 8.1 percent, compared to 9.6 percent in the like period of 1974. While the industry is doing much better than in the early 1970's, its profits are below a reasonable level.

I determine from the evidence obtained in the Commission investigation that the alloy tool steel industry is being seriously injured in the terms of the statute. I find no need to discuss the question of the threat of serious injury.

Substantial cause

The Trade Act, at section 201(b)(4) defines "substantial cause" as a "cause which is important and not less than any other cause." In addressing the question of substantial cause the House Ways and Means Committee stated:

> The Committee intends that a dual test be met--imports must constitute an important cause and be no less important than any other single cause. For example, if imports were just one of many factors of equal weight, imports would meet the test of being "not less than any other cause /sic/ but it would be unlikely that any of the causes would be deemed an "important" cause. If there were any other cause more important than imports, then the second test of being "not less than any other cause" would not be met. On the other hand, if imports were one of two factors of equal weight and there were no other factors, both tests would be met. 1/

1/ Report of the House Committee on Ways and Means (H. Rept. No. 93-571) p. 46.

The Senate Finance Committee Report addressed the question by stating:

> The Committee recognizes that "weighing" causes in a dynamic economy is not always possible. It is not intended that a mathematical test be applied by the Commission. The Commissioners will have to assure themselves that imports represent a substantial cause or threat of injury, and not just one of a multitude of equal causes or threats of injury. It is not intended that the escape clause criteria go from one extreme of excessive rigidity to complete laxity. An industry must be seriously injured or threatened by an absolute increase in imports, and the imports must be deemed to be a substantial cause of the injury before an affirmative determination should be made. 1/

In determining "substantial cause" it is necessary, therefore, to consider two tests. First, a cause must be important; and, second, a cause must be not less than any other cause. The remaining industries will be discussed in turn.

(1) Stainless-steel bar and wire rod

A comparison of average annual consumption of stainless-steel bar and rod over the 5-year period from 1970-74 with that of the preceding 5-year period shows a decline of 10,000 tons; at the same time the increase in imports of stainless-steel bar has increased by 10,100 tons. Average annual consumption of stainless-steel rod has increased over the 5-year period from 1970-74 by 7,200 tons over that of the preceding 5-year period. During this increase in consumption, imports increased by 2,700 tons. In a period when consumption of stainless-steel bar and rod decreased, imports increased.

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1/ U.S. Senate, Report of the Committee on Finance, Trade Reform Act of 1974 (S. Rept. No. 93-1298) p. 121 and 122.

The two principle causes of injury to the domestic industry are increased imports and the cyclical nature of the industry. From the information available, I am convinced that the most important cause of serious injury to the domestic stainless-steel bar and wire rod industry is increasing imports.

Thus, the final criterion for the awarding of affirmative relief is satisfied, and I so find in this case.

(2) Alloy tool steel

Average annual consumption of alloy tool steel over a 5-year period from 1970-74, when compared to that of the previous 5-year period, shows a decline of 25,900 tons, while imports of alloy tool steel over a corresponding period have increased by 3,400 tons. This shows that imports are increasing during a period of declining consumption.

I feel that the two principle causes of serious injury to the domestic industry are increased imports and the cyclical nature of the industry. From the information available, I am convinced that the most important cause of serious injury to the alloy tool steel industry is increased imports.

Thus, the necessary criteria for an affirmative determination for this industry are satisfied, and I so determine.

Conclusion

I have determined that stainless-steel bar and wire rod, and alloy tool steel are being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic

industry producing like or directly competitive articles. Further, I have determined that stainless-steel plate and stainless-steel sheet and strip, not cut, not pressed and not stamped to nonrectangular shape are not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing like or directly competitive articles.

Although I have determined in the negative for some of the industries involved. I am nevertheless of the opinion that I must participate fully in the recommendation of remedy when the Commission makes an affirmative determination. 1/

1/ For a statement of the legal and policy arguments of a Commissioner participating in the recommendation of a Commission remedy see the additional views of Vice Chairman Daniel Minchew with regard to recommendations of remedy in Asparagus: Report to the President on Investigation No. TA-201-4 under section 201 of the Trade Act of 1974.

## Views of Commissioner Italo H. Ablondi

On July 16, 1975, the United States International Trade Commission received a petition filed by the Tool and Stainless Steel Industry Committee for Import Relief and the United Steel Workers of America, AFL-CIO, requesting an investigation under section 201 of the Trade Act of 1974. On August 5, 1975, the Commission instituted an investigation to determine whether ingots, blooms, billets, slabs and sheet bars; bars; wire rods; and plates, sheet and strip, not cut, not pressed, and not stamped to nonrectangular shape; all the foregoing of stainless steel and alloy tool steel, provided for in items 608.18, 608.52, 608.76, 608.78, 608.85, 608.88, 609.06, 609.07, and 609.08 of the Tariff Schedules of the United States (TSUS), are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with such imported articles.

Section 201(b)(1) of the Trade Act requires that each of the following conditions be met before the Commission can recommend import relief to the President:

> (1) Imports of an article into the United States are increasing (either actually or relative to domestic production);
>
> (2) The domestic industry producing an article like or directly competitive with the imported article is being seriously injured or threatened with serious injury; and
>
> (3) Increased imports are a substantial cause (i.e., an important cause and not less than any other cause) of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive.

Since the criteria for an affirmative finding are stated in the conjunctive, failure to satisfy any one of the criteria must necessarily result in a negative determination.

Determination

On the basis of all the information obtained by the Commission during the instant investigation, I have concluded that the subject articles are not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or threat thereof, to the domestic industry producing stainless steel and alloy tool steel. Specifically, I find that the first criterion, that of increasing imports, has not been met.

Domestic industry

In my opinion, all of the articles which are the subject of this investigation are produced by a single domestic industry, commonly known as the specialty steel industry. Petitioners view this industry as "a cohesive, indivisible unit largely because of the interchangeability of the means of production." 1/ Stainless and tool steel are produced in the same melting, blooming, pressing, and hot-rolling facilities. In fact, two-thirds of the cost of producing such articles is incurred in production processes common to each article. All of the articles are products of the same technology and metallurgical base. Additionally, they require "expensive alloy ingredients, high labor content and share the same management and sales personnel." 2/ Furthermore, most of the

1/ Brief on behalf of the Tool and Stainless Steel Industry Committee for Import Relief (November 25, 1975), p. 7.

2/ Ibid.

domestic firms comprising the industry produce a combination of stainless steel and alloy tool steel products, often in the same facilities.

Increased imports

Inseparably connected to the issue of "increased" imports is the selection of a time period over which imports are to be measured. In my judgment the relevant measuring period in the instant case is confined to the period since 1968.

Section 201(b)(1) of the act requires the Commission to determine "whether an article is being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry . . . " (Emphasis added). By using the present tense, Congress clearly intended that the Commission consider only imports which have occurred during a period relative to the alleged injury. The act requires that imports be related to the injury claimed, and that the injury be current, or "new" injury. The relevant period of importation, then, must necessarily be close to the time of the injury (that is, to the present time) rather than during earlier periods of importation having little or no impact on present industry conditions.

The Senate Finance Committee has provided the following guidance to the Commission with respect to the appropriate measuring period:

> The increase in imports referred to would generally be such increases as have occurred since the effectiveness of the most recent trade agreement concessions proclaimed by the

> President, i.e., as of now, the effectiveness of the Kennedy Round concessions beginning in 1968. 1/

Thus, while the Commission is given discretion to select a measuring period "since the effectiveness of the most recent trade agreement concessions", it should not select a period prior to that time. Although the language used by the Committee is modified by the word "generally", congressional preference for the period since 1968 is manifest; and the Commission should not consider imports occurring prior to 1968 except in the rare case that the post-1968 period is distinctly unrepresentative for the industry in question.

It has been argued that the period since 1968 is unrepresentative and that the Commission should therefore consider imports which occurred prior to that time. I disagree. The factors cited by advocates of a longer measuring period are insufficient to warrant a departure from the the measuring period outlined by Congress.

Many of the factors which are asserted to be the cause of unusual market conditions during the period 1968-74 have been encountered in each investigation conducted by this Commission under section 201. The effects of recessions, dollar devaluations, and price controls were national in scope and not confined to the specialty steel industry. Furthermore, market factors which related specifically to specialty steel during the period 1968-74 did not so distort market conditions as to necessitate the adoption of an alternate measuring period. The nickel strike of 1969 was clearly a temporary condition which

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1/ Trade Reform Act of 1974 . . ., S. Rept. No. 93-1298 (93d Cong., 2d sess.) 1974, at p. 120.

served merely to delay imports until the following year. The two affirmative determinations of this Commission under the Antidumping Act each affected only one product from one exporting country. Finally, although the Voluntary Restraint Agreement (VRA) did affect import levels, its impact was limited by several factors, including the voluntary nature of the agreement--which in many instances caused imports to vary both above and below quota levels--and the fact that a substantial number of specialty steel exporters were not parties to the agreement. Clearly, the aforementioned factors are neither unique to the subject industry nor so pervasive as to substantially distort market conditions. Accordingly, there is no basis on which to adopt a measuring period extending before 1968.

In selecting the appropriate measuring period, it has been the established practice of this Commission under section 301 of the Trade Expansion Act as well as under section 201 of the 1974 Trade Act to analyze imports over a period of time of sufficient length to establish trends and thereby put aberrant or temporary conditions into proper perspective. 1/ Generally, the period of time selected by the Commission has been 5 years or so. On the basis of such a period, it can be seen that since 1970 total imports of stainless steel and alloy tool steel have declined absolutely and relative to domestic production. In 1974 total imports were over 7,000 tons less than in 1970. During 1970-74,

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1/ See, e.g., Ceramic Table and Kitchen Articles, Including Dinnerware . . . , TEA-I-22 . . . TC Publication 406, 1971; Bagatelle, Billiard, and Pool Balls . . . TEA-I-19 . . . TC Publication 374, 1971; Nonrubber Footwear . . . TEA-I-18 . . . TC Publication 359, 1971 (Commissioners Clubb and Moore) at pp. 10-11 (Commissioner Leonard) at p. 37.

annual U.S. production of stainless and alloy tool steel increased steadily from 700,000 tons to more than 1,325,000 tons. In the same period, the ratio of imports to domestic production was nearly halved, dropping from 24.4 percent to 12.3 percent.

During the recessionary period of 1974 and the first part of 1975, imports did increase relative to domestic production. However, a substantial part of the increase can be attributed to importers' lead times, which at the end of the third quarter of 1974 were roughly twice as long as domestic lead times. Such a differential meant that deliveries on orders placed with foreign producers during the boom period of 1974 continued through the fourth quarter of 1974 and the first and second quarters of 1975--a period during which domestic production fell almost 50 percent below 1974 levels. Clearly, these increases were inconsistent with the general downward trend evidenced during the period 1970-74 and, as such, are not sufficient to satisfy the requirement of "increased" imports. 1/

Therefore, since the threshold criterion of increased imports has not been satisfied, I accordingly find in the negative.

1/ See Antifriction Balls and Ball Bearings, Including Ball Bearings With Integral Shafts, and Parts Thereof . . . TEA-I-27 . . . TC Publication 597, 1973.

# INFORMATION OBTAINED IN THE INVESTIGATION

## Introduction

Following receipt on July 16, 1975, of a petition filed by the Tool and Stainless Steel Industry Committee and the United Steelworkers of America, AFL-CIO, the United States International Trade Commission, on August 5, 1975, instituted an investigation under section 201 of the Trade Act of 1974 to determine whether ingots, blooms, billets, slabs, and sheet bars; bars; wire rods; and plates, sheets and strip, not cut, not pressed, and not stamped to non-rectangular shape; all the foregoing of stainless steel and alloy tool steel, provided for in items 608.18, 608.52, 608.76, 608.78, 608.85, 608.88, 609.06, 609.07, and 609.08 of the Tariff Schedules of the United States (TSUS), are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing an article like or directly competitive with the imported articles. A public hearing in connection with the investigation was held from October 28 to October 31, 1975, in the Commission's hearing room in Washington, D.C.

Public notice of the investigation and hearing were duly given by publishing a notice in the Federal Register on August 11, 1975 (40 F.R. 33706). On October 3, 1975, the Commission amended the scope

of the investigation by deleting silicon electrical steel from the investigation. Notice of amendment of scope of the investigation was published in the Federal Register on October 9, 1975 (40 F.R. 47580).

Petitioners propose that a two-phase "safeguard" relief system be instituted as a remedy. The initial, temporary phase of such remedy would provide for mandatory import quotas based upon the historic market share held by imported steel products. The second, permanent phase of such remedy would involve the establishment of a mandatory, multilateral agreement for specialty steel products.

The Commission has conducted three antidumping investigations with respect to stainless steel. The Commission made affirmative determinations with respect to stainless plate from Sweden (1973) and wire rod from France (1973), 1/ and a negative determination on sheet and strip from France (1973). 2/3/

The information contained in this report was obtained from field-work, from questionnaires sent to domestic manufacturers, importers, and distributors, and from the Commission's files, other Government agencies, and evidence presented at the hearing and in briefs filed by interested parties.

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1/ Stainless Steel Plate from Sweden (1973), AA1921-114, TC Publication 573; Stainless Steel Rod from France (1973) AA1921-119, TC Publication 596.

2/ Stainless Steel Sheet from France (1973), AA1921-129, TC Publication 615.

3/ In addition to the Commission's investigations relating to products considered here, the U.S. Department of Labor on Nov. 12, 1975, certified approximately 1,200 workers of Armco's Baltimore plant eligible for assistance under the Trade Act of 1974. Armco's Baltimore plant produces stainless-steel rod and bar; on Nov. 17, 1975, the U.S. Department of Labor certified approximately 1,000 workers of Latrobe Steel's plant at Latrobe, Pa. eligible for assistance under the Trade Act of 1974. The Latrobe plant produces only alloy tool steel.

Description and Uses

Stainless steel

Stainless steel is an alloy steel containing, by weight, less than 1 percent of carbon and over 11.5 percent of chromium. Although the alloy mix generally includes nickel, molybdenum, and manganese, which improve its performance under chemical or temperature stress, it is primarily the addition of chromium which makes the product corrosion resistant.

Stainless steel can be readily fabricated or welded and can be tempered to many times the strength of ordinary carbon steel. It has an attractive silvery color and is furnished in dull, brushed, or polished finishes. It is used in products which require exceptional strength and resistance to oxidation.

Stainless steels are used extensively in the food, chemical, textile, pollution control, and electrical power industries. Most of the mass transportation systems utilize significant quantities of stainless steel because of its strength, durability, and corrosion resistance. It is widely used in contemporary furniture design as well as in modern sculpture and architecture.

Generally, the domestic and imported products covered herein are comparable in quality. All of the items imported into the United States

in any significant quantities, except razor blade steel, 1/ are produced in the United States by domestic mills.

Stainless steel is generally manufactured from scrap by means of the electric-furnace process. Other agents are added to the heat when the steel furnace is being charged, or during melting, or after tapping but before pouring from ladle to ingot mold. The alloying ingredients are added only to supplement those already present in the alloy scrap carefully selected for the charge.

Stainless steel, like carbon steel, is produced in various forms depending upon its ultimate use. Molten steel from the furnace is normally cast in ingot form and subsequently rolled on a slabbing or blooming mill or it may be cast directly in billet or slab form ready for hot-rolling.

As defined in the TSUS, plates are flat-rolled products whether or not corrugated or crimped in coils or cut to length, 0.1875 inch or more in thickness and, if not cold-rolled, over 8 inches in width, or, if cold-rolled, over 12 inches in width. Sheets are defined as flat-rolled products whether or not corrugated or crimped, in coils or cut to length, under 0.1875 inch in thickness and over 12 inches in width. Strip, likewise, is a flat-rolled product whether or not corrugated or crimped, in coils or cut to length, under 0.1875 inch

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1/ Razor blade steel is imported in the form of stainless strip, flat wire, and carbon strip. It is estimated by the staff of the U.S. International Trade Commission that approximately 500 tons of stainless strip for razor blades is imported into the United States annually. The value of such imports is estimated at slightly in excess of $1 million.

in thickness, and, if cold-rolled, over 0.50 inch but not over 12 inches in width, or, if not cold-rolled, not over 12 inches in width.

Stainless-steel plates are produced by hot-rolling from slabs. Plates are often annealed and pickled. Stainless-steel plates are widely used in the manufacture of equipment for the chemical-processing, petroleum-refining, textile, paper, and industrial heating industries.

Sheets are produced on either continuous mills or hand mills. They are often further processed by annealing, descaling, cold-rolling, or cold-reducing to specified thickness. Stainless-steel sheets are used extensively in manufacturing tanks, food processing, and hospital equipment.

Strip, like sheets, is produced in both cut lengths and coils. After having been hot-rolled from either slabs or billets, the hot-rolled strip is generally annealed and pickled. The great bulk of the stainless strip is cold-rolled on polished rolls. The cold-rolling requires a number of passes through the mill to effect the necessary reduction and to secure the desired surface characteristics and mechanical properties. Stainless strip is used extensively in catalytic converters, automobile trim, and appliances, as well as in a multitude of other industrial applications.

The TSUS defines bars as products of solid section not conforming completely to the specifications set forth for blooms, billets, slabs, sheet bars, wire rods, plates, sheets, strip, wire, rails, joint bars, or tie plates, and which have cross sections in the

shapes of circles, segments of circles, ovals, triangles, rectangles, hexagons, or octagons. They may also be square or flat.

Bars are produced by hot-rolling, forming, or pressing ingots to intermediate size blooms or billets which are then hot-rolled, forged, or extruded to final dimensions. They are not produced on the rolling mills which roll flat-rolled products. Bars may be subjected to heat treatment, annealing, descaling, pickling, blast-cleaning, rough-turning, and straightening. Hot-finished bars are generally furnished in straight lengths.

Cold-finished stainless bars are produced from hot-finished bars by additional operations to improve the finish or mechanical properties. Stainless-steel bars are used in a vast number of applications such as pump shafts, bearings, fasteners, medical and surgical instruments, and aircraft landing gear components.

Stainless wire rod is a coiled, semifinished, hot-rolled product of solid cross section, approximately round in cross section, not under 0.20 inch nor over 0.74 inch in diameter. The manufacture of stainless rod requires specialized equipment and manufacturing procedures. The bulk of both domestically produced and imported wire rod is sold to converters, which draw the rod into stainless wire.

Alloy tool steel

Tool steel is defined as alloy steel containing, by weight, any of the following combinations of elements: (1) Not less than 1.0 percent carbon and over 11.0 percent chromium; or (2) not less than 0.3 percent carbon and 1.25 percent to 11.0 percent, inclusive, chromium; or (3) not

less than 0.85 percent carbon and 1.0 percent to 1.8 percent, inclusive, manganese; or (4) 0.9 percent to 1.2 percent, inclusive, chromium and 0.9 percent to 1.4 percent, inclusive, molybdenum; or (5) not less than 0.5 percent carbon and not less than 3.5 percent molybdenum; or not less than 0.5 percent carbon and not less than 5.5 percent tungsten.

Tool steels are used primarily to make tools capable of cutting, forming, or otherwise shaping other materials in the manufacture of virtually all products of industry. They are made in small lots and under the highest quality-control levels. Tool steels, produced largely in the form of rods or bars, are noted for their hardness, abrasive resistance and heat resistance.

The principal market for tool steel is the tooling industry, which includes independent producers of tools and captive units of the automotive and farm-equipment producers. Tool steels are used to fashion cutting tools such as drills, taps, and broaches; shearing tools such as shears, blanking and trimming dies, and punches; forming tools such as forging dies and casting dies; and battering tools such as chisels.

High speed tool steel refers to all tool steel which contains not less than 0.5 percent carbon and not less than 3.5 percent molybdenum, or not less than 0.5 percent carbon and not less than 5.5 percent tungsten. High speed tool steel may be in the form of rod, plate, sheet, or bar.

## U.S. Tariff Treatment

The imported stainless steel and tool steel articles covered by the notice of this investigation are classified under TSUS items 608.18, 608.52, 608.76, 608.78, 608.85, 608.88, 609.06, 609.07, and 609.08. The present rates of duty range from 0.25 cents per pound plus 4 percent ad valorem (certain wire rods) to 11.5 percent ad valorem (stainless strip over 0.05 inch in thickness). All of the products are subject to additional duties under the provisions of items 607.01, 607.02, 607.03, and 607.04. 1/ The additional duties range from 0.75 cents per pound on chromium content in excess of 0.2 percent to 25 cents per pound on tungsten content in excess of 0.3 percent.

All of the rates of duty applicable to products covered in the investigation, except those on stainless- and tool-steel rod, were reduced pursuant to the Kennedy Round negotiations; they are shown in the table on the following page.

1/ Imports are subject to additional duties on their alloy content.

Stainless steel and alloy tool steel in specified forms: U.S. column 1 rates of duty applicable to imports from most-favored nations, Dec. 31, 1967 and Jan. 1, 1976

(Cents per pound; percent ad valorem)

| Product form and TSUS item no. | Column 1 rate applicable on Dec. 31-- | |
|---|---|---|
| | 1967 1/ | 1976 1/ |
| Ingots, blooms, billets, slabs, and sheet bars (608.18) | 14.5% | 8% |
| Bars (608.52) | 14.5% | 10.5% |
| Wire rods: | | |
| Not tempered, treated, or partly manufactured (608.76) | 0.25¢ + 4% | 0.25¢ + 4% |
| Other (608.78) | 0.375¢ + 4% | 0.375¢ + 4% |
| Plates and sheets: | | |
| Not pickled or cold rolled (608.85) | 12% | 9.5% |
| Other (608.88) | 0.1¢ + 12% | 10% |
| Strip, in thickness-- | | |
| Not over 0.01 inch (609.06) | 10% | 8% |
| Over 0.01, but not over 0.05 inch (609.07) | 12.5% | 10.5% |
| Over 0.05 inch (609.08) | 13.5% | 11.5% |

1/ Imports are also subject to duty on alloy content as follows (in cents per pound):

| | December 31-- 1967 | 1975 |
|---|---|---|
| Chromium content in excess of 0.2 percent (607.01) | 1.5¢ | 0.75¢ |
| Molybdenum content in excess of 0.1 percent (607.02) | 35¢ | 17.5¢ |
| Tungsten content in excess of 0.3 percent (607.03) | 50¢ | 25¢ |
| Vanadium content in excess of 0.1 percent (607.04) | 40¢ | 20¢ |

## Domestic Producers

The domestic producers of stainless and alloy tool steel are often referred to as specialty-steel producers. These specialty producers, in addition to producing stainless steel and alloy tool steel, manufacture a wide variety of silicon electrical steels, magnetic materials, high temperature and high strength metals, valve and bearing steels, super alloys, and exotic metals. Yet the great bulk of the total production is represented by stainless and alloy tool steel.

There are 20 domestic producers of stainless or alloy tool steel. Of these, 15 produce stainless steel and 11 produce alloy tool steel, with 6 firms producing both, 9 firms producing only stainless, and 5 firms producing only alloy tool steel.

Most of the domestic producers manufacture a narrow product line consisting of only one or two products. Most of them have two manufacturing divisions, one which produces flat-rolled products consisting of stainless-steel plate, sheet, or strip, and a bar-and-rod division, which produces either stainless bar and rod or alloy tool steel bar and rod or both.

Within the flat-rolled products division, most producers have chosen to specialize in either plate or sheet and strip. When a company makes both lines of products, separate mills and facilities are maintained, except as discussed hereinafter. Generally, slabs are the raw material used in the manufacture of plate or sheet and strip. The melting and slabbing operations are generally the same for sheet, strip, and plate.

It is beyond that point in the process that the operations become dissimilar. Sheet and strip are generally manufactured on different rolling mills than are used in the production of plate. Sheet and strip mills are equipped to convert slab to sheet or strip thickness (under 0.1875 inch) by passing the material through continuous rolls into coil form. After hot-rolling, most sheet and strip are subjected to cold-rolling and annealing operations.

Plate is normally reduced by passing slabs back and forth through a single set of rolls. Plate is not normally coiled and, except for special orders, is not cold-rolled. Except for Republic Steel Corp.'s 60-inch sheet mill, no domestic manufacturer has facilities which permit widths larger than 48 inches. On the other hand, the great bulk (perhaps 95 percent) of U.S. production of stainless plate is in widths ranging from 72 to 120 inches. Since one of the principal differences between plate and sheet and strip lies in thickness, there is an obvious overlap in production. Generally, sheet and strip mills can roll material up to 0.25 inch in thickness. Except for the overlap mentioned, sheet and strip mills cannot produce plate, and plate producers cannot economically produce sheet and strip on existing plate mills.

Companies which have facilities to produce alloy tool steel in bar and rod forms (the principal forms of alloy tool steel) may, with certain modifications, manufacture stainless bar and rod. Conversely, those stainless producers with bar and rod facilities may, with certain

modifications, produce alloy tool steel in bar and rod forms. 1/ However, producers with flat-rolling facilities alone cannot produce bar or rod products (stainless or tool steel), and those with bar and rod facilities alone cannot produce flat-rolled products. While some producers, such as Allegheny Ludlum Steel Corp. and Crucible Specialty Metals, have both flat-rolling and bar and rod facilities, those facilities are geographically and functionally separate.

The domestic producers of stainless steel and tool steel are concentrated in the northeastern region of the United States, principally in Pennsylvania. Chicago Heights, Ill., is the farthest western location of any domestic manufacturing facility of either stainless steel or tool steel.

The products under investigation constitute the bulk of the output of most of the stainless-steel and alloy tool steel producers. 2/

Allegheny Ludlum Steel Corp., a division of Allegheny Ludlum Industries, and Crucible Specialty Metals, a division of Colt Industries, Inc., are by far the largest domestic producers of stainless steel. Eastern Stainless Steel Co., Jessup Steel Co., and Allegheny Ludlum Steel Corp. are the largest stainless-plate producers in the United States in the

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1/ According to Mr. Eugene A. March, group vice president, Colt Industries, Inc., capital expenditures of approximately $1.4 million would be required in order to switch a plant's production from alloy tool steel to stainless-steel bar and rod or from stainless-steel bar and rod to alloy tool steel.

2/ U.S. Steel Corp., Bethlehem Steel Corp., Armco Steel Corp., Jones & Laughlin Steel Corp., and McLouth Steel Corp., are large carbon-steel producers. Although each produces one or more of the products covered by this investigation, stainless steel and alloy tool steel represent an insignificant portion of each company's total sales.

order named; together they accounted for over two-thirds of total U.S. production in 1974. Allegheny Ludlum, Crucible, and Jones & Laughlin Steel Corp. are the largest sheet and strip producers. Carpenter Technology Corp. is the largest rod producer, followed by Armco Steel Corp. Allegheny Ludlum is the largest in terms of noncaptive shipments of rods. Carpenter Technology Corp. is also the leading producer of stainless bars. Crucible, Armco, Jones & Laughlin Steel Corp., Joslyn Stainless Steel Co., and Allegheny Ludlum are all significant producers of stainless-steel bars.

Bethlehem Steel Corp. is the largest domestic producer of alloy tool steel, followed by Universal Cyclops, Crucible, Latrobe Steel Co., Teledyne Vasco, and Carpenter Technology.

Producers' efforts to compete with imports

Although some of the foreign mills are newer than many U.S. mills, the U.S. industry has long been a leader in developing new processes for production of specialty steel. The melting and refining technique for the production of stainless steel is licensed by a U.S. firm. Many of the processes currently being used throughout the world were the result of research in the United States. Most of the domestic producers have stressed alloy development, process improvement, and technical service to customers; they have eliminated unprofitable departments, facilities, and product lines.

Capital expenditures in recent years have been limited; very recently, planned expenditures have been cut back by several producers. However, large gains have been made in productivity through stepped-up

cost-reduction programs, through efforts to improve yields, by reducing energy costs wherever possible, by replacing old equipment, and by improving melting and finishing equipment. Product mix has been under constant review, and with the passing of each year, most of the producers are becoming more specialized, eliminating unprofitable products. A closer control of inventory has been initiated. Because profit margins have been less than satisfactory, several producers report that research-and-development expenditures have lagged.

Channels of distribution

U.S. producers' channels of distribution.--U.S. producers of stainless steel and alloy tool steel distribute their products either directly to end users or through steel service centers/distributors. In terms of aggregate tonnage in 1974, 56 percent of stainless steel shipments by U.S. producers went directly to end-use customers, and 44 percent was sold to service centers/distributors. The relative importance of the two marketing channels differs markedly, however, for various categories of stainless steel and alloy tool steel.

The role of the service center/distributor has increased in importance and in breadth of function during the past decade. Today's service centers/distributors not only provide a warehouse and inventory function by maintaining a large, diverse supply of stainless steel (and/or tool steel), but also offer metallurgical and application engineering services. In addition, the service centers increasingly provide pre-production processing services such as shearing, slitting, sawing, flame cutting, and grinding.

The domestic mills have fostered part of the increased importance of the service center in the distribution system for stainless and alloy tool steel. In their attempts to reduce costs and to maximize their use of production capacity, the domestic mills have made an effort to eliminate small orders and increase average order size. Shifting some end-use customers from mill to service centers/distributors has enabled the U.S. producers to lengthen production runs, reduce the number of shipments, and increase the size of shipments. The resultant savings

in production, handling, and inventory costs plus quantity purchases by service centers/distributors enable domestic mills to charge lower prices to service centers/distributors than to end users.

U.S. producers' stainless steel and alloy tool steel shipments to service centers/distributors and end users are shown in the table on the following page. The percent of shipments to these two markets remained relatively unchanged in 1973 and 1974. However, the percent of shipments of stainless steel to service centers/distributors declined sharply in January-September 1975 compared with the corresponding period in 1974.

The percent of shipments of stainless plate to service centers/distributors declined from 72 percent during January-September 1974 to 60 percent during the corresponding period of 1975; shipments of sheet and strip declined from 40 percent to 22 percent; those of rod, from 34 percent to 21 percent; and those of bar, from 45 percent to 33 percent. The percent of total U.S. producers' shipments of stainless products to service centers/distributors declined from 45 percent during January-September 1974 to 32 percent during the corresponding period of 1975.

Stainless steel and alloy tool steel: U.S. producers' shipments to service centers/distributors and end users, by types, 1973, 1974, January-September 1974, and January-September 1975

| Period | Stainless steel | | | | | | | | | | Alloy tool steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Plate | | Sheet and strip | | Rod | | Bar | | Total | | | |
| | Service centers/ distributors | End users | Service centers/ distributors | End users | Service centers/ distributors | End users | Service centers/ distributors | End users | Service centers/ distributors | End users | Service centers/ distributors | End users |
| | Quantity (1,000 tons) | | | | | | | | | | | |
| 1973 | 57.5 | 24.8 | 248.1 | 419.3 | 6.5 | 14.4 | 68.8 | 88.2 | 380.9 | 546.7 | 30.9 | 64.1 |
| 1974 | 97.9 | 42.2 | 289.3 | 461.2 | 8.5 | 17.3 | 79.7 | 88.7 | 475.4 | 609.4 | 31.2 | 66.9 |
| Jan.-Sept.-- | | | | | | | | | | | | |
| 1974 | 74.4 | 29.1 | 233.2 | 351.5 | 6.5 | 12.6 | 53.8 | 64.8 | 367.9 | 458.0 | 24.1 | 52.0 |
| 1975 | 53.2 | 35.2 | 59.7 | 206.4 | 1.5 | 5.7 | 29.3 | 58.8 | 143.7 | 306.1 | 19.4 | 31.1 |
| | Percentage distribution between service centers/distributors and end users | | | | | | | | | | | |
| 1973 | 70 | 30 | 37 | 63 | 31 | 69 | 44 | 56 | 41 | 59 | 33 | 67 |
| 1974 | 70 | 30 | 39 | 61 | 33 | 67 | 47 | 53 | 44 | 56 | 32 | 68 |
| Jan.-Sept.-- | | | | | | | | | | | | |
| 1974 | 72 | 28 | 40 | 60 | 34 | 66 | 45 | 55 | 45 | 55 | 32 | 68 |
| 1975 | 60 | 40 | 22 | 78 | 21 | 79 | 33 | 67 | 32 | 68 | 38 | 62 |

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

Importers' channels of distribution.--U.S. importers' stainless steel and alloy tool steel shipments to service centers/distributors and end users are shown in the table on the following page. The percent of shipments to these two markets remained relatively unchanged, except for that of sheet and strip, which declined from 75 percent during January-September 1974 to 60 percent during January-September 1975.

Stainless steel and alloy tool steel: Importers' shipments to service centers/distributors and end users, by types, 1973, 1974, January-September 1974, and January-September 1975

| Period | Stainless steel | | | | | | | | | | Alloy tool steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Plate | | Sheet and strip | | Rod | | Bar | | Total | | | |
| | Service centers/ distributors | End users | Service centers/ distributors | End users | Service centers/ distributors | End users | Service centers/ distributors | End users | Service centers/ distributors | End users | Service centers/ distributors | End users |
| | Quantity (1,000 tons) | | | | | | | | | | | |
| 1973 | 7.4 | 0.1 | 21.9 | 10.2 | 0.4 | 13.9 | 22.7 | 3.1 | 52.4 | 27.3 | 4.8 | 12.5 |
| 1974 | 8.3 | .7 | 39.8 | 10.7 | 1.3 | 18.8 | 26.4 | 5.1 | 75.8 | 35.3 | 5.4 | 11.4 |
| Jan.-Sept.-- | | | | | | | | | | | | |
| 1974 | 5.2 | .4 | 21.9 | 7.3 | .4 | 8.0 | 16.0 | 3.6 | 44.0 | 19.3 | 4.0 | 8.4 |
| 1975 | 7.5 | .6 | 15.5 | 10.2 | .8 | 7.7 | 17.4 | 3.1 | 41.2 | 21.6 | 3.7 | 7.7 |
| | Percentage distribution between service centers/distributors and end users | | | | | | | | | | | |
| 1973 | 99 | 1 | 68 | 32 | 3 | 97 | 88 | 12 | 66 | 34 | 28 | 72 |
| 1974 | 92 | 8 | 79 | 21 | 6 | 94 | 84 | 16 | 68 | 32 | 32 | 68 |
| Jan.-Sept.-- | | | | | | | | | | | | |
| 1974 | 93 | 7 | 75 | 25 | 10 | 90 | 82 | 18 | 70 | 30 | 32 | 68 |
| 1975 | 93 | 7 | 60 | 40 | 9 | 91 | 85 | 15 | 66 | 34 | 32 | 68 |

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

Concentration of stainless steel and alloy tool steel sales by steel service centers.--According to information provided by domestic producers and from field conversations with executives of several of the largest service center/distributor firms, it appears that most of the share of stainless steel that is marketed through service center/distributor channels is handled by a relatively small number of large firms which operate networks of service centers throughout the country. Among the largest of these firms are Joseph T. Ryerson & Son, Inc., A. M. Castle & Co., House of Stainless, and Ducommun Metals & Supply Co.

J. T. Ryerson & Son, Inc., with headquarters in Chicago, is a subsidiary of Inland Steel Co., operating 21 steel service centers strategically located in industrial cities in the northeastern and midwestern sections of the country, where most of the demand for stainless steel and alloy tool steel is centered. The firm also has service centers in such cities as Dallas and Seattle. Ryerson customers numbered more than 100,000 in 1974. A. M. Castle, whose corporate headquarters is also in Chicago, operates a network of service centers in the Midwest. Ducommun Metals has its headquarters in Los Angeles, with 12 other steel service centers located in such cities as Phoenix, Albuquerque, Houston, Dallas, Tulsa, Corpus Christi, and Honolulu. Ducommun Metals serves 30,000 customers in over 700 industries.

The Steel Service Center Institute estimates that every metal user buys some metal from service centers. An estimated 40,000 metal users buy mill direct and from service centers. Another 160,000 firms, whose needs are for small quantities, buy only from service centers/ distributors. These firms account for only about one-fifth of service center sales; the bulk of service center business is with the larger metal users, which also are mill-direct customers.

## The Question of Increased Imports

U.S. imports of stainless-steel ingots, blooms, slabs, billets, and sheet bars, stainless-steel sheet and strip, stainless-steel plate, stainless-steel rod, stainless-steel bar, and alloy tool steel enter the United States under one of nine individual TSUS item numbers: 608.18, 608.52, 608.76, 608.78, 608.85, 608.88, 609.06, 609.07, and 609.08. Imports entering under these TSUS item numbers represent a very broad range of stainless steel and alloy tool steel grades and sizes. U.S. imports of the above-mentioned products are sourced from nearly all industrialized nations of the world.

This section will examine the facts relating to the question of increased imports. Initially, the discussion will focus on the absolute increase or decrease in imports under various categories of products and various time periods. The ratio of U.S. imports to consumption and production will then be reviewed.

In the final part of the section the effects of the Voluntary Restraint Agreement on the level of imports will be reviewed, and some of the factors which caused imports to fluctuate over the period will be enumerated.

U.S. imports

Total stainless steel and alloy tool steel.--Annual U.S. imports of stainless steel and alloy tool steel increased from 168,000 tons in 1968 to 177,100 tons in 1969, declined to 170,622 tons in 1970, increased to 175,136 tons in 1971, declined over the next 2 years to 124,464 tons in 1973, then increased to 163,299 tons in 1974 (tables 1 to 4). 1/ The imports in 1974 were 4,801 tons (2.9 percent) lower than imports in 1968. U.S. imports of stainless steel and alloy tool steel in January-September 1975 amounted to 127,123 tons, 23,527 tons (22.7 percent) higher than imports in January-September 1974 (103,596 tons).

Total stainless steel.--Annual U.S. imports of stainless steel increased from 154,600 tons in 1968 to 162,400 tons in 1969, declined to 153,273 tons in 1970, increased to 162,535 tons in 1971, declined over the next 2 years to 101,381 tons in 1973, then increased to 139,359 tons in 1974 (tables 1 to 4). The imports in 1974 were 15,241 tons (9.9 percent) lower than imports in 1968. U.S. imports of stainless steel in January-September 1975 amounted to 107,602 tons, 21,058 tons (24.3 percent) higher than imports in January-September 1974 (86,544 tons).

1/ The data in tables 1 to 4 are the results of adding the totals of tables 5 to 14.

Stainless-steel sheet and strip.--Annual U.S. imports of stainless-steel sheet and strip declined from 81,300 tons in 1968 to 78,700 tons in 1969, increased over the next 2 years to 107,188 tons in 1971, declined over the next 2 years to 44,701 tons in 1973, then increased to 64,888 tons in 1974 (tables 3 and 4). The imports in 1974 were 16,412 tons (20.2 percent) lower than imports in 1968. Imports of these products during January-September 1975 were 48,529 tons, 10,581 tons (27.9 percent) higher than imports in January-September 1974 (37,948 tons).

Stainless-steel bar.--Annual U.S. imports of stainless-steel bar amounted to 12,600 tons in 1968 and 1969 and increased in each subsequent year to a record 27,892 tons in 1974 (tables 3 and 4). The imports in 1974 were 15,292 tons (121.4 percent) higher than imports in 1968. Imports of stainless-steel bar in January-September 1975 amounted to 23,265 tons, 4,641 tons (24.9 percent) higher than imports in January-September 1974 (18,624 tons).

Stainless-steel plate.--Annual U.S. imports of stainless-steel plate amounted to 5,200 tons in 1968, increased for the next 4 years to 17,116 tons in 1972, declined in 1973, and then increased to 12,351 tons in 1974 (tables 3 and 4). The imports in 1974 were 7,151 tons (137.5 percent) higher than imports in 1968. During January-September 1975, imports of plate amounted to 14,046 tons, 7,347 tons (109.7 percent) higher than imports in January-September 1974 (6,699 tons).

Stainless-steel rod.--Annual U.S. imports of stainless-steel rod totaled 15,900 tons in 1968, declined over the next 4 years to 13,006 tons in 1972, then increased over the next 2 years to 22,069 tons in 1974. The imports in 1974 were 6,169 tons (38.8 percent) higher than the imports in 1968. Imports of stainless-steel rod in January-September 1975 amounted to 15,092 tons, 498 tons (3.4 percent) higher than imports in January-September 1974 (14,594 tons).

Stainless-steel ingots, blooms, slabs, billets, and sheet bars.--Annual U.S. imports of stainless-steel ingots, blooms, slabs, billets, and sheet bars totaled 39,600 tons in 1968, increased to 49,000 tons in 1969, declined over the next 4 years to 8,528 tons in 1973, then increased to 12,159 tons in 1974. The imports in 1974 were 27,441 tons (69.3 percent) lower than imports in 1968. Imports of these products during January-September 1975 amounted to 6,670 tons, 2,009 tons (23.1 percent) lower than imports in January-September 1974 (8,679 tons).

Alloy tool steel. 1/--Annual U.S. imports of alloy tool steel increased from 13,500 tons in 1968 to 17,349 tons in 1970, declined to 12,601 tons in 1971, then increased over the next 3 years to 23,940 tons in 1974 (tables 1 to 4). The imports in 1974 were 10,440 tons (77.3 percent) higher than imports in 1968. U.S. imports of alloy

1/ It should be noted that imports of alloy tool steel are not separately identifiable in all TSUS items covered by this investigation. Based on a large sample of import invoices for 1974-75, it is estimated that imports of alloy tool steel are understated by about 6 percent for both 1974 and January-September 1975.

tool steel in January-September 1975 amounted to 19,521 tons, 2,469 tons (14.5 percent) higher than imports in January-September 1974 (17,052 tons).

Flat-rolled products.--Annual U.S. imports of flat-rolled products i.e., stainless-steel plate and sheet and strip, amounted to 86,500 tons in 1968, increased over the next 3 years to 117,509 tons in 1971, declined over the next 2 years to 55,952 tons in 1973, then increased to 77,239 tons in 1974 (tables 2 to 4). The imports in 1974 were 9,261 tons (10.7 percent) lower than imports in 1968. During January-September 1975, imports amounted to 62,275 tons, 17,628 tons (39.5 percent) higher than imports in January-September 1974 (44,647 tons).

Stainless-steel bar, stainless-steel rod, and alloy tool steel.--Annual U.S. imports of stainless-steel bar, stainless-steel rod, and alloy tool steel totaled 42,000 tons in 1968, increased over the next 2 years to 46,434 tons in 1970, declined to 42,229 tons in 1971, then increased over the next 3 years to a record 73,901 tons in 1974 (tables 2 to 4). The imports in 1974 were 31,901 tons (76.0 percent) higher than imports in 1968. Imports of these products during January-September 1975 amounted to 57,878 tons, 7,608 tons (15.1 percent) higher than imports in January-September 1974 (50,270 tons).

Increase or decrease in imports for various product categories and for various time periods

For convenience, the increase or decrease in imports in various product categories over selected time periods is shown in the following table.

Stainless steel and alloy tool steel: Increase or (decrease) in imports, types, 1974 over 1968, 1970, and 5-year average 1970-74, and January-September 1975 over January-September 1974

(In tons)

| Item | Increase or (decrease) in imports in-- | | | |
|---|---|---|---|---|
| | 1974 over 1968 | 1974 over 1970 | 1974 over 5-year average 1970-74 | Jan.-Sept. 1975 over Jan.-Sept. 1974 |
| Stainless steel and alloy tool steel, total | (4,801) | (7,323) | 9,537 | 23,527 |
| Stainless steel, total | (15,241) | (13,914) | 3,954 | 21,058 |
| Sheet and strip | (16,412) | (23,944) | (8,163) | 10,581 |
| Bar | 15,292 | 12,697 | 8,300 | 4,641 |
| Plate | 7,151 | 4,010 | 475 | 7,347 |
| Rod | 6,169 | 8,179 | 6,243 | 498 |
| Ingots, blooms, slabs, billets, and sheet bars | (27,441) | (14,856) | (2,901) | (2,009) |
| Alloy tool steel | 10,440 | 6,591 | 5,583 | 2,469 |
| Flat-rolled products | (9,261) | (19,934) | (7,688) | 17,928 |
| Stainless-steel bar and rod and alloy tool steel products | 31,901 | 27,467 | 20,126 | 7,608 |

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

Ratio of imports to consumption

The table below shows the ratio of imports to consumption for various product categories in 1970-74, January-September 1974, and January-September 1975.

Two general observations can be made concerning this table. The first one is that the ratio of imports to consumption declined over the 1970-74 period for all product categories except stainless-steel bar, alloy tool steel, and stainless-steel bar and rod and alloy tool steel together. The second observation is that the ratio of imports to consumption was higher in January-September 1975 than in January-September 1974 for all categories except stainless-steel ingots, blooms, slabs, billets, and sheet bars.

Stainless steel and alloy tool steel: Ratios of U.S. imports to consumption, total and by types, 1970-74, January-September 1974, and January-September 1975

(In percent)

| Item | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 |
|---|---|---|---|---|---|---|---|
| Stainless steel and alloy tool steel, total | 21.9 | 21.1 | 14.4 | 10.4 | 11.9 | 10.0 | 20.1 |
| Stainless steel, total | 22.5 | 21.7 | 14.2 | 9.4 | 11.1 | 9.2 | 19.1 |
| Sheet and strip | 21.1 | 20.9 | 10.4 | 6.2 | 7.9 | 6.0 | 15.6 |
| Bar | 13.1 | 13.5 | 13.7 | 11.9 | 15.0 | 13.2 | 23.1 |
| Plate | 12.9 | 17.8 | 23.9 | 12.6 | 8.9 | 6.4 | 14.0 |
| Rod | 57.0 | 57.2 | 51.0 | 45.0 | 48.0 | 44.9 | 69.8 |
| Ingots, blooms, slabs, billets, and sheet bars | 47.7 | 43.6 | 28.6 | 13.8 | 24.0 | 26.9 | 23.8 |
| Alloy tool steel, total | 17.9 | 16.0 | 16.0 | 19.7 | 19.3 | 17.7 | 27.5 |
| Flat-rolled products | 20.1 | 20.6 | 11.9 | 6.9 | 8.0 | 6.1 | 15.2 |
| Stainless-steel bar and rod and alloy tool steel products | 19.6 | 19.0 | 18.3 | 18.5 | 20.7 | 18.6 | 29.9 |

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

Note.--The above ratios were computed on the basis of quantity.

Ratio of imports to production

The table on the following page shows the ratio of imports to production for various product categories in 1970-74, January-September 1974, and January-September 1975.

It should be observed that the ratio of imports to production declined or remained relatively stable for all product categories in the 5-year period 1970-74 and that large increases occurred in the ratios for all product categories in January-September 1975 compared with January-September 1974. The increases in the ratios ranged from a low of 10.5 percentage points for stainless-steel plate to a high of 58.3 percentage points for stainless-steel rod. It should be noted that there were much larger increases in the imports-to-production ratios than in the imports-to-consumption ratios in January-September 1975 primarily because production decreased more than consumption.

Stainless steel and alloy tool steel: Ratios of U.S. imports to production, total and by types, 1970-74, January-September 1974, and January-September 1975

(In percent)

| Item | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- | |
|---|---|---|---|---|---|---|---|
| | | | | | | 1974 | 1975 |
| Stainless steel and alloy tool steel, total | 24.4 | 23.4 | 14.5 | 10.6 | 12.3 | 9.6 | 24.5 |
| Stainless steel, total | 24.6 | 24.2 | 14.3 | 9.6 | 11.6 | 8.8 | 23.1 |
| Sheet and strip | 21.4 | 22.3 | 12.4 | 5.9 | 7.9 | 5.5 | 17.2 |
| Bar | 14.0 | 15.1 | 14.9 | 13.4 | 15.8 | 13.9 | 29.5 |
| Plate | 13.8 | 20.7 | 28.3 | 13.5 | 8.6 | 5.5 | 16.0 |
| Rod | 36.9 | 38.3 | 28.1 | 28.7 | 34.9 | 30.5 | 88.8 |
| Alloy tool steel, total | 22.1 | 16.8 | 16.3 | 20.2 | 19.2 | 18.8 | 36.8 |
| Flat-rolled products | 20.4 | 18.1 | 9.5 | 6.6 | 8.0 | 5.5 | 16.9 |
| Stainless-steel bar and rod and alloy tool steel products | 20.7 | 19.4 | 17.7 | 18.6 | 20.3 | 18.4 | 38.7 |

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

Note.--The above ratios were computed on the basis of quantity.

Changes in sources and types of U.S. imports

At the beginning of 1969, the Japanese and European steel producers agreed to limit exports of steel-mill products to the United States for the 3-year period 1969-71; this was the Voluntary Restraint Agreement (VRA).

The foreign participants in the VRA found it advantageous to increase their exports of the high-priced products, such as stainless steel, since the agreement was based on tonnage and not value. Thus, the VRA, in effect, encouraged the shift of imports to stainless and other alloy steels.

Early in 1972 the VRA was extended until the end of 1974; the United Kingdom joined the program along with the European Community (EC) and Japan. The United States was successful in getting the participants to agree to a specific limit on their exports of stainless steel and tool steel, as well as all steel-mill products. With respect to stainless steel, the limitations were as follows (in short tons): 1/

| | 1972 | 1973 | 1974 |
|---|---|---|---|
| Japan | 79,854 | 75,861 | 77,758 |
| EC (including the United Kingdom) | 26,540 | 24,799 | 25,420 |

Japan agreed to limit exports of tool steel to the United States to 984 short tons in 1972, 1,008 tons in 1973, and 1,033 tons in 1974. The EC and the United Kingdom agreed to limit exports of high-speed tool steel (which probably accounts for well over half of all imports of alloy tool steel) to the United States to 528 tons in 1972, 516 tons in 1973, and 528 tons in 1974.

1/ It should be noted that the limitations that applied to stainless steel included stainless steel in all forms. Stainless wire and stainless pipe and tubes are not covered in this investigation. In 1974 the EC countries and the United Kingdom exported almost 7,000 tons and Japan, almost 16,000 tons, of stainless wire to the United States.

Aside from whatever effect the VRA had, U.S. imports of stainless steel have been influenced by the demand for stainless steel in other parts of the world. As demand for stainless steel increases in other countries, less stainless steel is exported to the United States, and as demand decreases in other countries, more stainless steel is exported to the United States. Currently there are antidumping findings in effect on stainless-steel wire rod from France and stainless-steel plate from Sweden which have reduced U.S. imports from those countries.

As shown in table 5, the principal sources of imports of stainless steel, based on 1974 data, were Japan, Canada, France, and Sweden. Other major sources of stainless steel imports were the United Kingdom, Spain, and West Germany. The table also reveals that over the 1970-74 period the share of U.S. imports accounted for by the two largest sources, Japan and Canada, dropped from 80.1 percent of total U.S. stainless steel imports in 1970 to 58.8 percent in 1974. Imports from Japan alone increased by 27,500 tons during January-September 1975 compared with the corresponding period of 1974. Imports from all sources increased by only 21,100 tons during the 1975 period.

In the table on the following page, U.S. imports of stainless steel are ranked by product group, largest to smallest, based on imports in 1974. In 1974, imports of stainless-steel sheet and strip were more than twice as large as the imports of bar (the next largest import category). However, imports of stainless

bar , rod, and plate have been increasing their share of total U.S. imports. These three product lines accounted for 24.4 percent of total U.S. imports of stainless steel in 1970 and 44.7 percent in 1974. This latter figure represents an increase of 83.2 percent over the 5-year period.

Stainless-steel products: U.S. imports, by product groups, 1970-74, January-September 1974, and January-September 1975

| Stainless-steel product group | 1970 | 1971 | 1972 | 1973 | 1974 | January-September-- 1974 | January-September-- 1975 |
|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | |
| Sheet and strip | 88,832 | 107,188 | 59,645 | 44,701 | 64,888 | 37,948 | 48,529 |
| Bar | 15,195 | 16,229 | 18,509 | 20,137 | 27,892 | 18,624 | 23,265 |
| Rod | 13,890 | 13,399 | 13,006 | 16,764 | 22,069 | 14,594 | 15,092 |
| Plate | 8,341 | 10,321 | 17,116 | 11,251 | 12,351 | 6,699 | 14,046 |
| Ingots | 27,015 | 15,398 | 12,198 | 8,528 | 12,159 | 8,679 | 6,670 |
| Total | 153,273 | 162,535 | 120,474 | 101,389 | 139,359 | 86,544 | 107,602 |
| | Percent of total | | | | | | |
| Sheet and strip | 58.0 | 65.9 | 49.5 | 44.1 | 46.6 | 43.9 | 45.1 |
| Bar | 9.9 | 10.0 | 15.4 | 19.9 | 20.0 | 21.5 | 21.6 |
| Rod | 9.1 | 8.2 | 10.8 | 16.5 | 15.8 | 16.9 | 14.0 |
| Plate | 5.4 | 6.4 | 14.2 | 11.1 | 8.9 | 7.7 | 13.1 |
| Ingots | 17.6 | 9.5 | 10.1 | 8.4 | 8.7 | 10.0 | 6.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

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

The largest suppliers of alloy tool steel imports to the United States in 1974--Sweden, West Germany, Austria, Japan, and Canada--were also the major suppliers in 1970 (table 11). This is probably a result of the high technology and skills required to produce alloy tool steel. Table 11 also shows that most suppliers of imported alloy tool steel to the United States reduced their shipments during January-September 1975 compared with January-September 1974. However, four countries--Sweden, Austria, Japan, and Finland--increased their shipments to the United States. The increase in imports from these four countries not only offset the decrease in imports from all other U.S. suppliers, but caused a net increase of 2,469 tons (14.5 percent) during January-September 1975 over the corresponding 1974 period.

## The Question of Serious Injury to the Domestic Industry

This section examines the facts relating to the question of serious injury to the domestic industry. The discussion will initially focus on U.S. producers' capacity, production, and capacity utilization. Discussion will then follow on U.S. producers' shipments. A comparison between U.S. producers' and importers' average unit value of shipments, costs, and profit margins will be shown, along with related factors such as unshipped orders, inventories, and lead times for both U.S. producers and importers. The presentation will then shift to U.S. exports, employment, and man-hours. Finally, there will be a discussion on pricing trends for representative stainless-steel products and a financial analysis of U.S. producers.

Capacity

Domestic producers have added little or no capacity since 1970 (table 15). Virtually all of the producers have improved existing facilities and increased yields and productivity; however, low profits were cited by several producers as the reason for the lack of expansion programs to increase capacity.

The capacity to melt stainless steel increased from 2,168,150 tons in 1970 to 2,295,700 tons in 1974; however, the capacity to melt tool steel was less in 1974 (286,250 tons) than in 1970 (293,000 tons). Capacity to produce flat-rolled products increased annually from 1,131,468 tons in 1970 to 1,273,705 tons in 1974. Domestic capacity to manufacture stainless bar increased from 175,700 tons in 1970 to 202,900 tons in 1974, while capacity to manufacture stainless rod increased from 69,200 tons in 1970 to 74,300 in 1974. The capacity to manufacture tool steel declined from 143,800 tons in 1970 to 139,700 tons in 1974. Data on domestic capacity during January-September 1975 were virtually the same as those reported for the period January-September 1974.

Utilized capacity to melt stainless and tool steel and utilized capacity to roll stainless steel plates, sheets, and strip increased annually from 1970 to 1974 (table 16). Utilized capacity to melt stainless steel rose from 54 percent in 1970 to 89 percent in 1974; for tool steel, it increased from 39 percent in 1970 to 62 percent in 1974. During January-September 1975, operating levels fell to 45 percent for the melting of stainless steel and to 31 percent for the melting of tool steel. Operating levels of the rolling mills fell to 37 percent.

The utilized capacity to manufacture stainless-steel rod and bar and alloy tool steel followed the same general trend as utilized capacity to melt stainless and alloy tool steel. Operating levels for these products were slightly less in 1972 than in 1971 but increased in both 1973 and 1974. The operating levels of domestic facilities in manufacturing these products during January-September 1975 were at depressed levels; stainless rod facilities operated at 31 percent of capacity, stainless bar facilities, at 50 percent of capacity, and tool steel facilities, at 47 percent of capacity.

Domestic production

Domestic production of stainless and alloy tool steel increased without interruption from 700,313 tons in 1970 to 1,328,532 tons in 1974 (table 17). Production in 1974 was at an alltime peak as domestic mills ran virtually at capacity levels throughout much of the year. Lead times were considerably longer than normal. As the business slowdown became quite evident in late 1974, increasing inventories, the lack of new orders, order cancellations, and stretchouts of existing orders caused domestic mills to cut back production sharply. Domestic production during January-September 1975 amounted to 518,768 tons, less than half of the 1,079,112 tons produced during the corresponding period of 1974.

The same general trend prevailed in the various product groupings. Increases in domestic production occurred in all product groupings in 1973 and 1974 followed by severe decreases during January-September 1975. A comparison of the January-September 1975 period with the corresponding

period of 1974 shows that the largest percentage decreases in domestic production occurred in stainless-steel rod--65 percent (47,840 tons to 16,986 tons)--followed by stainless-steel sheet and strip--59 percent (684,919 tons to 281,738 tons). Other declines were as follows: stainless plate, from 121,435 tons to 87,576 tons; stainless bar, from 134,374 tons to 78,838 tons; and alloy tool steel, from 90,544 tons to 53,630 tons.

U.S. producers' shipments

Stainless steel and alloy tool steel.--Aggregate annual shipments of stainless steel and alloy tool steel by U.S. producers increased steadily from 1970 to 1974 but then dropped sharply in January-September 1975. The shipments of such products almost doubled between 1970 and 1974, increasing from 687,041 tons in 1970 to a record 1,339,479 tons in 1974 (tables 1 and 18). During January-September 1975, shipments amounted to 549,161 tons, a decline of 482,975 tons (46.8 percent) from the corresponding 1974 period.

Stainless steel.--U.S. producers' shipments of stainless steel rose annually from 605,853 tons in 1970 to a record 1,234,924 tons in 1974 (tables 1 and 18), increasing by 629,071 tons (103.8 percent). Shipments amounted to 493,452 tons during January-September 1975, a decline of 456,163 tons (48.0 percent) from the corresponding 1974 period.

Stainless-steel sheet and strip.--U.S. producers' shipments of stainless-steel sheet and strip rose annually from 393,900 tons in 1970 to a record 825,298 tons in 1974 (tables 3 and 18), increasing by 431,398 tons (109.5 percent). Shipments amounted to 283,605 tons during January-September 1975, a decline of 355,529 tons (55.6 percent) from the corresponding 1974 period.

Stainless-steel bar.--U.S. producers' shipments of stainless-steel bar rose each year from 105,887 tons in 1970 to a record 168,460 tons in 1974 (tables 3 and 18), increasing by 62,573 tons (59.1 percent). Shipments amounted to 83,181 tons during January-September 1975, a decline of 45,307 tons (35.3 percent) from the corresponding 1974 period.

Stainless-steel plate.--U.S. producers' shipments of stainless-steel plate totaled 59,285 tons in 1970, declined to 50,534 tons in 1971, then rose over the next 3 years to a record 140,167 tons in 1974 (tables 3 and 18), increasing 80,882 tons (136.4 percent) from 1970 to 1974. Shipments amounted to 89,356 tons during January-September 1975, a decline of 14,002 tons (13.5 percent) from the corresponding 1974 period.

Stainless-steel rod.--U.S. producers' shipments of stainless-steel rod totaled 11,142 tons in 1970, declined to 10,341 tons in 1971, then rose over the next 3 years to a record 25,816 tons in 1974 (tables 3 and 18), increasing 14,674 tons (131.7 percent) from 1970 to 1974. During January-September 1975, shipments amounted to 6,777 tons, a decline of 12,362 tons (64.6 percent) from the corresponding 1974 period.

Stainless-steel ingots, blooms, slabs, billets, and sheet bars.--Annual U.S. producers' shipments of stainless-steel ingots, blooms, slabs, billets, and sheet bars totaled 35,639 tons in 1970, declined to 23,841 tons in 1971, then rose over the next 3 years to a record 75,183 tons in 1974 (tables 3 and 18), increasing 39,544 tons (111.0 percent) from 1970 to 1974. Shipments amounted to 30,533 tons during January-September 1975, a decline of 28,963 tons (48.7 percent) from the corresponding 1974 period.

Alloy tool steel.--U.S. producers' shipments of alloy tool steel amounted to 81,188 tons in 1970, declined to 68,051 tons in 1971, then rose over the next 3 years to a record 104,555 tons in 1974 (tables 1 and 18), increasing by 23,367 tons (28.8 percent). Shipments amounted to 55,709 tons during January-September 1975, a decline of 26,812 tons (32.5 percent) from the corresponding 1974 period.

Flat-rolled products.--U.S. producers' shipments of flat-rolled products (stainless-steel plate, sheet, and strip) rose annually from 453,185 tons in 1970 to a record 965,465 tons in 1974 (tables 2 and 18), increasing by 512,280 tons (113.0 percent). Shipments amounted to 372,961 tons during January-September 1975, a decrease of 369,531 tons (49.8 percent) from the corresponding 1974 period.

Stainless-steel rod and bar and alloy tool steel.--U.S. producers' shipments of stainless-steel rod and bar and alloy tool steel totaled 198,217 tons in 1970, declined to 185,736 tons in 1971, then increased over the next 3 years to a record 298,831 tons in 1974 (tables 2 and 18), increasing 100,614 tons (50.7 percent) from 1970 to 1974.

Shipments amounted to 145,667 tons during January-September 1975, a decline of 84,481 tons (36.7 percent) from the corresponding 1974 period.

Average unit value of shipments

The average unit values of U.S. producers' shipments of stainless steel, various stainless-steel products, and alloy tool steel are shown in table 19. In general, this table shows a decline in average unit values from 1970 to 1971, then a gradual increase over the next 3 years until price controls were removed on April 1, 1974. The data indicate a rapid increase in unit values from April-June 1974 until early in 1975; thereafter, unit values declined.

Table 19 also shows the average unit values of U.S. producers' costs of goods sold for the above-mentioned products. In general, there was a decline in costs for the period January 1970 to March 1974; thereafter a sharp rise in costs was reported. The decline in costs can be explained by increases in efficiency resulting from larger production runs of individual products and the absolute increase in production for all products, which enabled U.S. producers to spread their fixed costs over more units of production.

Average unit costs rose in the second quarter of 1974, and continued to rise throughout the year. The primary reasons for the rise were the increases in raw-material and labor costs. Labor costs increased rapidly during this period as producers scheduled heavy overtime work during much of this period. Average unit costs generally continued to increase

through September 1975. Again, increases in raw-material and labor costs played a part, but the dominant factor was the large decline in production, which caused fixed costs to be spread over fewer units of production.

The average unit values of U.S. importers' shipments of stainless steel, various stainless-steel products, and alloy tool steel are shown in table 20. In general, this table shows a decline in the average unit values from 1970 to 1971, then a gradual increase over the next 3 years until price controls were removed on April 1, 1974. The data indicate a rapid increase in average unit values from April-June 1974 until early in 1975; thereafter, average unit values declined.

Table 20 also shows the average unit values of U.S. importers' costs of goods sold for the above-mentioned products. In general, this table shows a decline in importers' costs of goods sold for the period 1970-73, then a sharp rise in these costs through June 1975. In July-September 1975, importers' purchase prices declined, except those for alloy tool steel.

Table 21 summarizes the gross profit-or-loss margins of both U.S. producers and importers. The margins shown in this table are the results of the interactions of average unit values of shipments and costs shown in table 19 for U.S. producers and table 20 for U.S. importers. In general, U.S. producers' gross profit margins were low or nonexistent in the 1970-73 period, rose considerably in 1974 and through June 1975, then dropped precipitously to or below the 1970-73 levels. U.S. importers' margins varied throughout the entire period, 1970-January-September 1975.

Unshipped orders

As shown in table 22, U.S. producers' unshipped orders of stainless steel and alloy tool steel peaked between January 1, 1974, and October 1, 1974. In the case of four of the product groups shown, i.e., stainless-steel plate, stainless-steel rod, stainless-steel bar, and alloy tool steel, the peak date was October 1, 1974. The peak date for stainless-steel sheet and strip was 9 months earlier (January 1, 1974). The peak date for the entire stainless-steel group was April 1, 1974.

U.S. producers' unshipped orders were extremely high during January-September 1974 in relation to those in the earlier periods shown. The unshipped orders of U.S. producers decreased rather abruptly sometime between October 1, 1974, and January 1, 1975. The latter fact is probably the result of cancellation of multiple orders placed by many U.S. consumers earlier in 1974. It should also be noted that stainless-steel sheet and strip is the only product group which has experienced an increase (October 1, 1975) in unshipped orders at any point since late 1974.

As shown in table 23, U.S. importers' unshipped orders of stainless steel and alloy tool steel, for the period January 1, 1974, to October 1, 1975, peaked between April 1, 1974, and January 1, 1975. For stainless-steel plate, stainless-steel bar, and total stainless steel, the peak date was October 1, 1974. The peak dates for the other product groups shown were as follows: stainless-steel sheet and strip, July 1, 1974; stainless-steel rod, April 1, 1974; and alloy tool steel, January 1, 1975.

U.S. importers' unshipped orders did not experience as large a decrease during October 1, 1974-January 1, 1975, as U.S. producers' unshipped orders. U.S. importers also showed an increase in unshipped orders as of October 1, 1975, for stainless-steel plate, sheet and strip, bar, and total stainless steel.

Average lead times 1/

U.S. producers' average lead times ranged between 13 and 21 weeks during January 1, 1974-October 1, 1974, depending on the product (table 24). The lead times for individual products ranged from 6 to 44 weeks during this same period. The low lead times reported for each product line were almost always associated with the dominant U.S. producer of that product. Starting sometime between October 1, 1974 and January 1, 1975, the average lead times of U.S. producers' products declined rapidly from the higher levels shown above. As of October 1, 1975, average lead times ranged from 5 to 14 weeks depending on the product lines.

U.S. importers' average lead times ranged between 20 and 42 weeks during January 1, 1974-October 1, 1974, depending on the product (table 25). The lead times for individual products ranged from 10 to 46 weeks during this same period. Similar to the situation among U.S. producers, the low lead times reported for each product line were almost always associated with the dominant U.S. importer of that product. The average lead times of U.S. importers' products also began to decline in late 1974 and early 1975. However, importers' lead times did not decline as fast as U.S. producers' lead times and are still considerably higher.

1/ Excludes ingots, blooms, slabs, billets, and sheet bars.

Inventories

U.S. producers' inventories did not exhibit a great degree of variation annually during 1970-73, or quarterly during January 1, 1974-October 1, 1975 (table 26). For the period January 1, 1974, to October 1, 1975, producers' inventories of ingots, blooms, slabs, sheet bars, billets, and plate, total stainless steel, and alloy tool steel peaked on January 1, 1975. Inventories of stainless-steel sheet and strip and stainless-steel rod peaked on January 1, 1974, and October 1, 1974, respectively. It should be noted that U.S. producers reduced production during 1975 in order to keep inventories in line with sales. The vast majority of the U.S. producers' inventories was held by the five largest U.S. producers.

U.S. importers' inventories increased, particularly after October 1, 1974, and were at their highest levels as of October 1, 1975, for all products except stainless-steel bar and ingots, blooms, slabs, sheet bars, and billets (table 27). The bulk of the U.S. importers' inventories were held by importers associated with Japanese and Swedish producers and by two major independent importers.

Inventories of major U.S. consumers of stainless steel and alloy tool steel sampled by the Commission peaked earlier than U.S. importers' inventories (table 28). Consumers' inventories peaked later or in the same period as U.S. producers' inventories for all products except alloy tool steel.

U.S. exports

U.S. exports of stainless steel, based on quantity, were smaller than U.S. imports of stainless steel for all periods except for the 9-month period January-September 1974. U.S. exports of stainless steel were 77,893 tons in 1970, declined to 48,626 tons in 1971, and then increased annually to 122,518 tons in 1974 (tables 1 and 29). For the period January-September 1975, exports were 39,118 tons. This last figure represents a decline of 59,547 tons (60.4 percent) from the 98,665 tons exported during January-September 1974.

The largest export markets for U.S. stainless steel, based on 1974 exports, were Canada and Belgium (table 29). Other large export markets were Mexico, the United Kingdom, Brazil, Australia, and Taiwan.

Stainless steel products: U.S. exports, by product groups, 1970-74, January-September 1974, and January-September 1975

| Product group | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 |
|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | |
| Sheet and strip | 62,721 | 37,976 | 38,957 | 60,796 | 67,105 | 49,773 | 21,499 |
| Ingots, blooms, slabs, billets, and sheet bars | 6,055 | 3,903 | 11,309 | 14,516 | 36,724 | 35,916 | 8,601 |
| Bars | 5,365 | 3,477 | 3,585 | 6,405 | 9,949 | 5,962 | 5,734 |
| Plates | 3,089 | 2,968 | 2,054 | 4,076 | 6,936 | 5,803 | 3,099 |
| Rod | 663 | 302 | 580 | 509 | 1,804 | 1,211 | 235 |
| Total | 77,893 | 48,626 | 56,485 | 86,302 | 122,518 | 98,665 | 39,118 |
| | Percent of total | | | | | | |
| Sheet and strip | 80.5 | 78.1 | 69.0 | 70.4 | 54.8 | 50.4 | 54.8 |
| Ingots, blooms, slabs, billets, and sheet bars | 7.8 | 8.0 | 20.0 | 16.8 | 30.0 | 36.4 | 22.0 |
| Bars | 6.9 | 7.2 | 6.3 | 7.4 | 8.1 | 6.0 | 14.7 |
| Plates | 4.0 | 6.1 | 3.6 | 4.7 | 5.7 | 5.9 | 7.9 |
| Rod | .9 | .6 | 1.2 | .6 | 1.5 | 1.2 | .6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

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

In the table on the preceding page, U.S. exports of stainless steel are ranked by product group on the basis of exports in 1974. Stainless-steel sheet and strip and stainless-steel ingots, and so forth, are by far the largest U.S. export items. Together, these product groups accounted for an average 88 percent of total exports. During the period January-September 1975, the percentage of total exports accounted for by any one product group was not significantly different from the 5-year average except for ingots, and so forth and stainless-steel sheet and strip.

Alloy tool steel.--U.S. exports of tool steel were much smaller than U.S. imports for all periods (table 1). U.S. exports of tool steel were 1,730 tons in 1970, increased to 2,084 tons in 1971, declined to 1,929 tons in 1972, then increased over the next 2 years to 4,709 tons in 1974 (table 1). For the period January-September 1975, tool steel exports were 4,129 tons, an 809-ton increase (24.4 percent) from the 3,320 tons exported during January-September 1974. The largest export markets for U.S. tool steel based on 1974 exports were Canada, the United Kingdom, and Australia (table 30).

## U.S. producers' exports

The exports of stainless steel and alloy tool steel reported by U.S. producers to the U.S. International Trade Commission (table 31) are considerably smaller than such exports reported in official U.S. Government statistics. The primary reason for this difference is that a large volume of exports is made by U.S. manufacturers which performed some processing on the basic product but have not altered the basic product enough to change its classification into a more advanced form when it is exported.

Employment trends

Data on employment levels for stainless-steel and alloy tool steel products reveal the impact of economic events and changing market conditions during the period under observation, 1970-75. The average number of persons employed in U.S. establishments in which stainless steel and alloy tool steel were produced totaled 24,407 in 1970, as shown in the table on the following page. The total number of employees declined to 22,947 in 1971 and increased to 23,060 in 1972. As demand increased and imports declined, employment increased 18 percent to 27,254 in 1973 and 8 percent to 29,468 in 1974. During the first 9 months of 1975, the total number of employees declined to 21,194 compared with 29,676 in the first 9 months of 1974. The number of production and related workers in U.S. establishments in which stainless steel and alloy tool steel are produced declined from 18,305 in 1970 to 17,129 in 1971, then increased steadily over the next 3 years to 23,620 in 1974. During the first 9 months of 1975, as production dropped and imports increased, the number of production and related workers declined to 15,516, about 35 percent below the figure for the corresponding period of 1974. The number of such workers making individual stainless-steel and alloy tool steel products followed the same general trend as total employment. 1/

Roughly three-fourths of total production and related employees are engaged in the production of stainless steel, and the remainder are employed in the production of alloy tool steel.

1/ During January-September 1975, employment in the production of plate declined at a lower rate than employment in the production of other products.

Average number of persons employed in U.S. establishments in which stainless steel and alloy tool steel were produced, 1970-74, January-September 1974, and January-September 1975 1/

| Item | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept. | |
|---|---|---|---|---|---|---|---|
| | | | | | | 1974 | 1975 |
| All employees, total | 24,407 | 22,947 | 23,060 | 27,254 | 29,468 | 29,676 | 21,194 |
| Production and related workers, total | 18,305 | 17,129 | 17,885 | 21,843 | 23,620 | 24,044 | 15,516 |
| All employees in the establishments producing tool steel, total | 6,267 | 5,017 | 5,251 | 5,982 | 6,210 | 6,109 | 4,285 |
| Production and related workers engaged in the production of tool steel, total | 4,718 | 3,758 | 3,969 | 4,611 | 4,727 | 4,745 | 3,169 |
| All employees in the establishments producing stainless steel, all product forms, total | 18,140 | 17,930 | 17,809 | 21,272 | 23,258 | 23,567 | 16,907 |
| Production and related workers engaged in the production of stainless steel, total | 13,587 | 13,371 | 13,916 | 17,232 | 18,893 | 19,299 | 12,347 |
| Ingots, blooms, slabs, sheet bars, and billets | 465 | 434 | 478 | 529 | 632 | 618 | 494 |
| Plate 2/ | 1,555 | 1,297 | 1,272 | 1,662 | 2,378 | 2,377 | 2,078 |
| Sheet and strip 2/ | 7,762 | 8,231 | 8,641 | 10,853 | 11,302 | 11,700 | 6,746 |
| Rods 2/ | 242 | 250 | 267 | 378 | 444 | 427 | 179 |
| Bars 2/ | 3,155 | 2,838 | 2,749 | 3,355 | 3,717 | 3,760 | 2,748 |

1/ Excludes 1 producer, accounting for an estimated 10 percent of industry employment, which did not provide data in usable form.

2/ Excludes 1 producer which did not report data for individual products separately; therefore, individual products will not add up to the product total.

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

Man-hours worked.--The total number of man-hours worked by production and related workers in the manufacture of stainless steel and alloy tool steel declined from 35.5 million in 1970 to 33.7 million in 1971, then increased over the next 3 years to 49.2 million in 1974, as shown in the following table. The turn-around in demand in 1975 reduced the number of man-hours worked for the period January-September 1975 to 22.3 million compared with 38.4 million in the corresponding period of 1974.

Analysis of man-hours worked for the individual product categories reveals that the same general trend prevailed there as in total man-hours worked. 1/

1/ During January-September 1975, man-hours worked in the production of plate declined at a lower rate than man-hours worked in the production of other products.

Man-hours worked by production and related workers in U.S. establishments in which stainless steel and alloy tool steel were produced, 1970-74, January-September 1974, and January-September 1975

(In thousands of man-hours)

| Item | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- | |
|---|---|---|---|---|---|---|---|
| | | | | | | 1974 | 1975 |
| Production and related workers, total-- | 35,483 | 33,680 | 36,777 | 44,994 | 49,167 | 38,379 | 22,271 |
| Production and related workers engaged in the production of tool steel, all product forms, total | 8,251 | 6,788 | 7,750 | 9,322 | 9,942 | 7,603 | 4,484 |
| Production and related workers engaged in the production of stainless steel, total | 27,232 | 26,892 | 29,027 | 35,672 | 39,225 | 30,776 | 17,787 |
| Ingots, blooms, slabs, sheet bars, and billets | 1,219 | 845 | 1,169 | 1,400 | 1,574 | 1,218 | 953 |
| Plate | 2,911 | 2,450 | 2,413 | 3,247 | 4,977 | 3,694 | 2,929 |
| Sheet and strip | 15,160 | 16,293 | 17,587 | 21,379 | 21,858 | 17,759 | 8,776 |
| Rod | 596 | 578 | 645 | 895 | 1,068 | 782 | 306 |
| Bar | 7,345 | 6,727 | 7,213 | 8,751 | 9,748 | 7,323 | 4,823 |

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

Output per man-hour.--Since 1970, the output per man-hour of stainless steel and alloy tool steel producers increased sharply except for stainless steel which declined during January-September 1975 compared to the corresponding 1974 period. Based on the number of man-hours worked and tonnages produced, the index of output per man-hour was calculated and is shown below.

Output per man-hour: Stainless steel and alloy tool steel, 1970-74, January-September 1974, and January-September 1975

(1970=100)

| Period | Stainless steel | Alloy tool steel |
|---|---|---|
| 1970 | 100 | 100 |
| 1971 | 107 | 116 |
| 1972 | 125 | 123 |
| 1973 | 127 | 129 |
| 1974 | 134 | 132 |
| January-September-- | | |
| 1974 | 141 | 125 |
| 1975 | 118 | 126 |

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

Several factors explain the sharp increase in output per man-hour. Fieldwork revealed that many of the U.S. mills had invested in new highly productive furnaces, had introduced computer control to the melt process and had eliminated obsolete facilities. Conversations with officials of service centers revealed that mill order size has increased, thus boosting output per man-hour. Probably the most important increment in increased output per man-hour, however, is the level of capacity utilization.

## Prices

Price trends for stainless steel and alloy tool steel.--Price data were collected from both the supply and the demand side of the market for stainless steel and alloy tool steel. On the supply side, data on net prices received were obtained from U.S. producing mills and importers. To confirm price patterns, prices paid for stainless steel and alloy tool steel were gathered from selected service centers/ distributors and end users.

To assure comparability, price data were collected on sales of selected items of stainless-steel plate, sheet and strip, bar, rod, and alloy tool steel. 1/ The individual products selected are standard items, and each accounts for a significant amount of domestic production and imports within its respective category. Thus, the data on these specific items within each product grouping--stainless-steel plate, sheet and strip, bar, rod, and alloy tool steel--reflect overall price trends and relationships in each respective market.

Each of the five product groups--stainless steel-plate, sheet and strip, bar, rod, and alloy tool steel--represents a distinct market in and of itself, with unique supply/demand aspects. Nevertheless, there is a common trend of prices and import price/producer price relationships throughout almost all the product groups.

U.S. producers' prices were relatively stable from 1970 through 1972, increased moderately during 1973, and then almost without exception

1/ Selection of the specific grades, dimensions, and representative order sizes was made after consultation with both U.S. producers and importers.

climbed sharply and steadily during 1974 and, for some of the selected products, well into 1975. The prices of the imported products generally reflected the same pattern for 1970-73. In 1974, importers' prices increased as much as and, in several cases, more than the rise in prices of the corresponding domestically produced stainless-steel and alloy tool steel products. The prices of the imported products, however, in contrast to the prices of the domestically produced products, peaked in 1974 and then dropped rather sharply in 1975.

The table on pages A-62 and A-63 presents domestic prices and import prices for each selected stainless-steel and tool steel product. These price series are grouped by types of products to enable comparisons of price trends both within and between the five categories of stainless steel and alloy tool steel covered by this investigation.

There is no simple explanation for the price trends the data reveal. Rather, observed patterns were shaped by a complex set of factors and events, some external to industry demand and supply forces and others directly related to industry and importer action and reaction to market developments. Certain of these economic factors and events, however, stand out and help to explain, at least in part, the general trend in prices and price relationships between imported and U.S.-produced stainless steel and alloy tool steel. A brief chronological summary of some of these key factors provides a useful framework for examining the price pattern in each of the five categories of stainless steel and alloy tool steel covered by this investigation.

Prices of stainless steel were at relatively high levels in early 1970 as a result of the pent-up demand for stainless steel caused by shortages of these products that developed during the worldwide nickel strike in 1969. (Nickel is an important input in making stainless steel.) As the supply of stainless steel increased during 1970, demand eased and domestic and import prices fell. Demand softened even more as the recession of 1970-71 deepened. Import competition was strong, and prices in 1971 continued to decline below the lows of late 1970.

Devaluation of the U.S. dollar in 1971 (and revaluation of the Japanese yen) cut into the price advantage of imported stainless steel to a small degree. Part of the strength of imports of stainless steel during 1969-71 stemmed from the voluntary restraint agreement (VRA) on steel tonnage of all forms. The VRA caused foreign mills and importers to concentrate on higher value types of steel to maintain foreign exchange earnings while adhering to the quantity limitation of the VRA.

Recovery from recession began to boost world demand in 1972. At the same time, the VRA was applied specifically, in tonnage terms, to stainless steel and alloy tool steel. Both factors eased the import pressure on U.S. prices to some degree and set the stage for increases in the prices of the domestic product as imports declined. Price controls during all of 1972 had put a lid on domestic prices, and the various phases of price controls in 1973 dampened price increases by U.S. mills. The second devaluation of the U.S. dollar in 1973, along with foreign currency revaluations, slimmed the price advantage held by imports considerably, and as world demand expanded strongly other

markets became more attractive to foreign mills. The net result was that imports declined in 1973 at the same time that U.S. demand for stainless steel and alloy tool steel surged ahead.

As a result, service centers/distributors and end users alike sought to assure supply, beginning in late 1973 and continuing into 1974, by placing duplicate and triplicate orders. Stainless-steel and alloy tool steel prices increased, and production in domestic mills was at peak capacity. Availability, not price was the key factor in selecting a source during this period. Many U.S. purchasers turned to imports, duplicating orders placed with domestic mills.

Foreign demand peaked earlier than U.S. demand. The economic downturn that slid into deep recession came earlier abroad than at home. Faced with this drop in demand in other markets, the U.S. market, with its relative strength and higher prices, became attractive to foreign mills, especially Japanese mills, and imports increased sharply beginning in the second quarter of 1974. Import prices during this quarter and during the last half of 1974 were sharply above their 1973 level and in some cases exceeded the price of competing domestic stainless steel and alloy tool steel.

After order levels peaked in late 1974, the U.S. recession gained momentum, inventories increased, orders were canceled, if possible, or pushed ahead, and demand dropped precipitously. Prices, reflecting this market turnaround from boom to severe downturn, leveled off or fell during 1975.

Price comparison of domestic and imported stainless steel and alloy tool steel.--Tables 32 through 43 compare U.S. producers' and importers' prices for sales of selected grades of stainless steel and alloy tool steel to service centers/distributors or end users from 1970 through the third quarter of 1975. The data shown are for selected grades and dimensions of stainless-steel plate, sheet and strip, bar, and rod and alloy tool steel.

Price data were collected on (a) lowest net price received, (b) the quantity sold at that price, (c) the price at which the largest volume was sold, and (d) the total quantity sold regardless of price. Depending on the specific product, the data reveal prices to service centers/distributors or to end users. Generally, price data were complete, but quantity data were spotty and frequently lacking altogether. In most cases, the lowest net price was the same as or closely corresponded to the price at which the greatest volume was sold. Consequently, the average lowest net prices are the basis for comparison throughout the analysis. Where prices of certain products are shown for certain time periods, price comparisons are based on data from a single respondent firm and are footnoted in the tables.

Stainless-steel plate.--Price comparisons of domestic and imported stainless-steel plate, grades 304 and 316L, are shown in the following tables. The average lowest net price of U.S. producers for stainless-steel plate, grade 304, 1/4 inch,was 66 cents per pound in 1970 and decreased to 59 cents per pound in 1971 and 1972. In 1973 the

average lowest net price of grade 304 recovered to its 1970 level (66 cents per pound). Average lowest U.S. producers' prices of grade 304 increased to 69 cents per pound in the first quarter of 1974 and, after price controls were removed on April 1, 1974, increased rapidly to 93 cents per pound by yearend, representing an increase of 41.5 percent over 1973. The average lowest price increased slightly to 95 cents per pound in 1975. The price of grade 316L shows a pattern similar to that for grade 304.

The average lowest net price of imported stainless-steel plate, grade 304, was 45 cents per pound in 1970 and 1971 and increased to 47 cents per pound in 1972 and to 50 cents per pound in 1973. The average lowest net price received for grade 304 imported stainless-steel plate continued to increase in the first three quarters of 1974, equaling the U.S. producers' average price of 84 cents per pound in the third quarter of 1974. The importers' price then declined over the last quarter of 1974 and the first three quarters of 1975 to 77 cents per pound in the third quarter of that year.

Stainless-steel sheet and strip.--The general trend in prices for stainless-steel sheet is reflected in the price patterns of grades 304 and 430. The lowest net price of domestic stainless-steel sheet, grade 304 (of the specified gage), averaged 59 cents per pound in 1970, declined over the next 3 years to 49 cents per pound in 1973, increased

in all four quarters of 1974 (averaging 71 cents per pound in the last quarter of 1974), continued to increase to 73 cents per pound in the first quarter of 1975, then declined to 70 cents per pound in the third quarter of 1975.

A similar pattern is apparent for the selected grade 430 type of stainless-steel sheet and strip.

The average lowest net price of imported sheet, grade 304, was 50 cents per pound in 1970, declined to 46 cents per pound in 1971, increased over the next 3 years to 77 cents per pound in the last quarter of 1974, then declined throughout 1975 to 67 cents per pound in the third quarter of 1975. Importers' average lowest prices were below U.S. producers' prices in 1970-72 and January-September 1975 but above U.S. producers' prices in 1973 and 1974.

Stainless-steel bar.--The trend in lowest net prices of U.S. producers for stainless-steel bar follows the same pattern as shown for stainless-steel plate and stainless-steel sheet and strip (table 35). All three standard grades of bar (303, 304, and 416) for which price data were obtained follow an almost parallel price pattern. 1/

Again, 1974 marks the beginning of sharp recovery from the low level of prices during 1971 and 1972. For grade 304, prices remained dampened until the second quarter of 1974 because of price controls. Average prices for all three grades of domestic bar climbed steadily during the

1/ The price and quantity data base for bar was better than for any of the other four product groups. From five to seven domestic mills provided comprehensive data. An equal number of importers also submitted data for the complete time period requested.

remainder of 1974 and continued to rise in early 1975. Prices leveled off in the second quarter, however, and all three grades dropped a few percentage points in the third quarter of 1975.

The lowest net average prices for selected grades of imported stainless-steel bars show a steady upward movement throughout the period covered by this investigation. The increase of prices was slightly more for imported than for domestic bar in percentage terms, ranging from 58 percent to 73 percent, according to grade. Grades 303 and 304, however, showed a decline in lowest average price between the first and third quarters of 1975.

Stainless-steel wire rod.--The trend in average lowest net prices of U.S. producers for sales of stainless-steel wire rod follows the same general pattern as that for plate, sheet and strip, and bar (table 36). Based on data for grade 304, the price received increased 61 percent from 1970 through the third quarter of 1975. Again, this understates the overall increase, considering that the price of grade 304 stainless-steel wire rod of the selected size declined in price from 60 cents a pound to 51 cents a pound during 1970-72. The average price of domestic rod recovered slightly in 1973 to 53 cents a pound. In 1974, domestic rod prices climbed rapidly through the first three quarters, then leveled off at about 97 cents a pound in the second half of 1974 and the first three quarters of 1975.

The average lowest net price of imported stainless-steel wire rod was 50 cents per pound in 1970, declined to 45 cents per pound in 1971 and 1972, then moved steadily upward from 1973 through the third quarter

of 1975. This is the only imported stainless-steel product for which the average lowest net price in the third quarter of 1975 was higher than in the first quarter of 1975. Importers' prices were above U.S. producers' prices only in 1973 and the first quarter of 1974.

Price trends in stainless steel: Average lowest net prices received by U.S. producers and importers from sales of selected types of stainless steel to steel service centers/distributors or end users, 1970-73 and, by quarters, January 1974-September 1975

(In cents per pound)

| Product form and description | 1970 | 1971 | 1972 | 1973 | January-March 1974 | April-June 1974 | July-September 1974 | October-December 1974 | January-March 1975 | April-June 1975 | July-September 1975 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Stainless-steel plate: | | | | | | | | | | | |
| Grade 304, HRAP, 1/4" x 72" x 240": | | | | | | | | | | | |
| Domestic | 66.0 | 58.8 | 59.4 | 65.7 | 68.6 | 74.7 | 84.4 | 93.0 | 94.6 | 93.8 | 94.6 |
| Imported | 45.3 | 45.3 | 47.1 | 50.0 | 60.7 | 66.7 | 84.4 | 82.6 | 77.9 | 78.9 | 77.0 |
| Grade 316L, HRAP, 1/4" x 72" x 240": | | | | | | | | | | | |
| Domestic | 99.97 | 90.77 | 89.00 | 95.76 | 100.00 | 105.89 | 114.16 | 119.63 | 123.23 | 122.49 | 123.18 |
| Imported | 74.74 | 67.72 | 66.62 | 70.81 | - | 88.15 | 119.50 | 103.42 | 100.5 | 100.00 | 100.00 |
| Stainless-steel bar: | | | | | | | | | | | |
| Grade 303, cold finished, 1/2" round: | | | | | | | | | | | |
| Domestic | 75.4 | 73.1 | 64.7 | 80.3 | 90.7 | 97.0 | 96.9 | 105.0 | 117.5 | 114.7 | 111.5 |
| Imported | 54.6 | 59.7 | 59.3 | 65.3 | 78.7 | 82.6 | 83.4 | 85.1 | 86.2 | 79.9 | 81.6 |
| Grade 304, cold-finished, 1-1/2" round: | | | | | | | | | | | |
| Domestic | 70.9 | 67.5 | 60.6 | 63.1 | 58.3 | 75.3 | 101.5 | 107.7 | 116.0 | 117.8 | 114.1 |
| Imported | 46.7 | 54.4 | 53.1 | 59.0 | 65.6 | 72.9 | 74.5 | 77.9 | 76.9 | 76.3 | 76.1 |
| Grade 416, cold-finished, 2" round: | | | | | | | | | | | |
| Domestic | 48.4 | 45.9 | 42.8 | 46.5 | 52.4 | 64.4 | 74.7 | 76.9 | 85.4 | 84.6 | 81.4 |
| Imported | 37.4 | 40.8 | 39.2 | 45.1 | 49.0 | 54.4 | 63.5 | 60.2 | 60.0 | 64.7 | 62.1 |
| Stainless-steel sheet and strip (cold-rolled): | | | | | | | | | | | |
| Grade 304, 2B finish, 8-14 gage x coil: | | | | | | | | | | | |
| Domestic | 58.85 | 52.20 | 50.63 | 49.46 | 54.81 | 60.27 | 66.83 | 70.68 | 72.55 | 67.83 | 69.63 |
| Imported | 49.75 | 46.16 | 46.76 | 55.80 | 72.42 | 66.38 | 73.39 | 76.54 | 70.00 | 68.25 | 67.33 |

Price trends in stainless steel: Average lowest net prices received by U.S. producers and importers from sales of selected types of stainless steel to steel service centers/distributors or end users, 1970-73 and, by quarters, January 1974-September 1975--Con.

(In cents per pound)

| Product form and description | 1970 | 1971 | 1972 | 1973 | January-March 1974 | April-June 1974 | July-September 1974 | October-December 1974 | January-March 1975 | April-June 1975 | July-September 1975 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Stainless steel sheet and strip (cold-rolled)--Continued: | | | | | | | | | | | |
| Grade 430, 2B finish, 20 gage x coil: | | | | | | | | | | | |
| Domestic | 46.19 | 46.54 | 47.27 | 49.01 | 54.39 | 59.38 | 71.10 | 71.96 | 75.53 | 73.75 | 73.75 |
| Imported | 37.52 | 36.59 | 38.03 | 47.98 | 55.35 | 57.19 | 57.28 | 64.53 | 59.18 | 55.39 | 56.14 |
| Stainless steel strip; 1/ | | | | | | | | | | | |
| Grade 430, 2 finish, .060" x 3" to 12" x coil: | | | | | | | | | | | |
| Domestic | 2/ 44.59 | 2/ 44.79 | 2/ 44.17 | 2/ 43.47 | 2/ 46.75 | 2/ 50.25 | 2/ 60.55 | 67.31 | 70.07 | 70.07 | 69.47 |
| Imported | 31.4 | - | 35.1 | 36.0 | 47.0 | 47.0 | - | - | - | - | - |
| Stainless steel wire rod; 1/ | | | | | | | | | | | |
| Grade 304, .217" round: | | | | | | | | | | | |
| Domestic | 60.4 | 53.6 | 51.3 | 53.0 | 58.6 | 75.0 | 97.0 | 96.0 | 97.0 | 97.0 | 97.0 |
| Imported | 49.6 | 45.0 | 45.3 | 53.8 | 64.2 | 64.0 | 69.6 | 74.7 | 78.1 | 77.7 | 79.6 |

1/ Sales of this product were sales to end users.
2/ 1 company reported a .060" x 3" x coil.

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

Alloy tool steel.--Price data were collected for selected grades and sizes of alloy tool steel bar, alloy tool steel high-speed rod, and alloy tool steel high-speed bar. Generally, price trends for these products followed the same pattern as those for stainless-steel products. Prices declined or remained stable early in the period (1970-72), increased in 1973, then climbed sharply in 1974. For some grades and sizes, both domestic and import prices continued to rise in 1975, in contrast to the more general drop in stainless-steel prices, especially the prices of imported stainless steel. For others, import prices were sharply lower in 1975. For most grades and sizes of alloy tool steel, however, prices of imported alloy tool steel were consistently below those of the domestic product throughout the entire period 1970-75 and generally by wider margins than for stainless steel. The prices paid by end-use customers and service centers/distributors for each selected alloy tool steel product are shown in the table on pages A- and A-

Price patterns for alloy tool steel vary sharply among products and selected grades and among different sizes within the same grade. When prices to service centers/distributors are compared with prices to end users, they usually vary.

Alloy tool steel bar.--Price data were collected for four selected grades of alloy tool steel bar. Price patterns vary considerably among these selected products. The most striking difference is in the sharply higher price of the same grade and size sold to an end-use customer over the price of that grade sold to a service center/distributor.

As the tables on the following pages indicate, throughout the entire period except for two quarters in 1974, there was strong import price competition for sales of grade D-2, 1-1/2-inch and for grade D-2, 8-1/8-inch round alloy tool steel bar whether sold to end-use customers or to service centers/distributors. During 1970-74, the average lowest net price paid by service centers/distributors for imported grades D-2 was roughly 30 to 60 percent below that paid for domestically manufactured products. During the entire period, domestic prices received for these grades increased between 50 and 60 percent. Import prices increased roughly 150 percent for D-2, 1-1/2 inch, and almost 200 percent for D-2, 8-1/8 inch.

The prices paid by end-use customers follow the same general trend with two exceptions. First, the difference between the average import price and the average domestic price was less, and second, the prices paid by end users were at times as much as 50 to 100 percent higher than the prices paid by service centers/distributors for the same product in the same period. The price data on other alloy tool steel bar and rod products are shown in the tables on the following pages.

Price trends in alloy tool steel: Average lowest net price received from sales to end users, 1970-73 and, by quarters, January 1974-September 1975

(In cents per pound)

| Product form and description | 1970 | 1971 | 1972 | 1973 | January-March 1974 | April-June 1974 | July-September 1974 | October-December 1974 | January-March 1975 | April-June 1975 | July-September 1975 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alloy tool steel bar: | | | | | | | | | | | |
| Grade D-2, 1-1/2" round, hot-rolled, annealed: | | | | | | | | | | | |
| Domestic | 116.1 | 109.5 | 119.6 | 127.4 | 133.9 | 140.2 | 149.8 | 169.4 | 168.0 | 163.5 | 174.3 |
| Imported | 100.0 | 115.0 | 116.0 | 105.5 | 135.0 | 115.0 | 101.0 | 143.0 | 167.0 | 154.0 | 167.0 |
| Grade D-2, 8-1/8" round, rough-turned, annealed: | | | | | | | | | | | |
| Domestic | 122.6 | 114.2 | 114.2 | 125.5 | 146.2 | 157.4 | 154.2 | 149.8 | 215.2 | 198.1 | 186.2 |
| Imported | 102.5 | 116.5 | 96.0 | 81.5 | 108.0 | 115.5 | 131.0 | 121.5 | 151.0 | 115.5 | 127.0 |
| Grade H-12, 9" round, rough-turned, annealed: | | | | | | | | | | | |
| Domestic | 72.0 | 67.7 | 64.5 | 76.0 | 75.7 | 83.3 | 103.3 | 110.9 | 122.3 | 125.3 | 125.8 |
| Imported | - | - | - | 59.0 | 60.0 | 68.0 | 79.0 | 78.0 | 82.0 | 78.0 | 90.0 |
| Alloy tool steel, high-speed rod: | | | | | | | | | | | |
| Grade M-7, .250" round x hot-rolled, annealed x coil: | | | | | | | | | | | |
| Domestic | 126.8 | 129.7 | 136.7 | 143.8 | 153.5 | 166.8 | 183.4 | 194.7 | 226.0 | 216.7 | 250.0 |
| Imported | 91.0 | 101.5 | 98.0 | - | - | 89.4 | 101.7 | - | 103.2 | 113.5 | 119.8 |
| Alloy tool steel, high-speed bar: | | | | | | | | | | | |
| Grade M-2, 1" round x random lengths, cold finished: | | | | | | | | | | | |
| Domestic | 143.36 | 141.73 | 150.27 | 149.32 | 153.56 | 172.86 | 192.86 | 211.71 | 220.12 | 230.59 | 237.35 |
| Imported | - | 121.45 | 127.50 | 133.00 | 144.00 | 140.50 | 154.50 | 145.00 | 172.30 | 161.80 | - |
| Grade M-7, 1" round x cold finished: | | | | | | | | | | | |
| Domestic | 136.4 | 128.76 | 136.88 | 138.8 | 146.72 | 149.7 | 170.0 | 181.3 | 184.22 | 207.98 | 185.58 |
| Imported | - | - | 125.0 | - | - | - | - | 200.0 | 200.0 | - | 179.0 |

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

Price trends in alloy tool steel: Average lowest net price received from sales to steel service centers/distributors, 1970-73 and, by quarters, January 1974-September 1975

(In cents per pound)

| Product for and description | 1970 | 1971 | 1972 | 1973 | January-March 1974 | April-June 1974 | July-September 1974 | October-December 1974 | January-March 1975 | April-June 1975 | July-September 1975 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alloy tool steel bar: | | | | | | | | | | | |
| Grade D-2, 1-12" round, hot-rolled, annealed: | | | | | | | | | | | |
| Domestic | 98.8 | 101.3 | 102.9 | 109.4 | 113.8 | 118.4 | 131.9 | 135.3 | 151.3 | 151.3 | 151.3 |
| Imported | 40.0 | 57.3 | 52.9 | 77.3 | 87.4 | 89.0 | 97.9 | 79.3 | 91.2 | 95.8 | 98.9 |
| Grade D-2, 8-1/8" round, rough-turned, annealed: | | | | | | | | | | | |
| Domestic | 105.0 | 107.6 | 109.3 | 105.9 | 121.9 | 131.3 | 140.6 | 145.3 | 158.6 | 168.3 | 168.6 |
| Imported | 43.0 | 64.4 | 62.8 | 60.2 | 90.1 | 90.5 | 132.0 | 123.3 | 125.4 | 117.2 | 120.7 |
| Grade O-1, 1" x 4", cold-finished flat, decarb free: | | | | | | | | | | | |
| Domestic | 76.6 | 80.7 | 84.0 | 85.1 | 89.7 | 99.4 | 108.8 | 111.0 | 121.4 | 121.2 | 120.4 |
| Imported | - | 57.5 | 64.8 | 69.0 | 77.0 | 73.0 | 116.1 | 86.5 | 109.4 | 109.9 | 106.4 |
| Alloy tool steel, high-speed bar: | | | | | | | | | | | |
| Grade M-2, 1" round, random lengths, cold finished: | | | | | | | | | | | |
| Domestic | 128.75 | 143.90 | 149.16 | 158.02 | 169.53 | 181.16 | 208.47 | 220.63 | 230.58 | 230.58 | 230.58 |
| Imported | 109.00 | 122.00 | 110.50 | 130.50 | 156.00 | 176.00 | 157.50 | - | - | - | 217.00 |

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

Profit-and-loss experience

Responses to questionnaires covering 1970-74, January-September 1974, and January-September 1975 were received from 17 domestic producers of stainless steel and alloy tool steel representing approximately 90 percent of the production of stainless steel and alloy tool steel. The profit-and-loss experience of the respondents will be discussed by selected product groupings and not by individual product lines; however, the operations by product line can be found separately in the profit-and-loss tables in the appendix.

Overall establishment operations.--The overall operations of the establishments producing stainless steel and alloy tool steel consist mainly of the steel-producing operations. Total net sales of stainless steel and alloy tool steel as percentages of overall establishment net sales range from 66 to 72 percent for the period covered.

Total overall establishment net sales held constant at $1.1 billion during 1970-71 but increased steadily thereafter to $1.3 billion in 1972, $1.8 billion in 1973, and $2.5 billion in 1974. Sales figures for January-September 1975 show a decline in sales of 32.8 percent from net sales for January-September 1974 (table 42).

Net operating profits dropped from $37 million in 1970 to $18 million in 1971 but showed a steady recovery for the remaining 3 years of the period and reached a high of $273 million in 1974. Operating profit for January-September 1975, however, declined to $41 million, or by about 83 percent from the $232 million operating profit for the corresponding period in 1974. Net operating profit as a percentage of

net sales followed a similar trend by dropping from 3.5 percent in 1970 to 1.7 percent in 1971 and then increasing to 11.1 percent in 1974. During January-September 1975, operating profit was down to 3.3 percent from the 12.6 percent recorded for January-September 1974.

Net profit before income taxes followed a trend similar to that of net operating profit by decreasing from $29 million in 1970 to $13 million in 1971 and then gradually increasing to $259 million in 1974. The profit during January-September 1975 dropped approxomately 86 percent from what it was in the same period in 1974.

Stainless steel and alloy tool steel.--Sixteen domestic producers of stainless steel and alloy tool steel reported that total net sales and intercompany transfers rose steadily from $760 million in 1970 1/ to $810 million in 1971, $955 million in 1972, and $1.3 billion in 1973, and peaked at $1.9 billion in 1974. However, during January-September 1975, sales declined almost 36 percent from what they were in comparable period in 1974 (table 45).

Net operating profit was down to approximately $5 million in 1971 from the $16 million reported for 1970. In the remaining 3 years of the period, however, operating profit on stainless steel and alloy tool steel rose steadily to $39 million in 1972 and $224 million in 1974. During the period January-September 1974 and January-September 1975, operating profit declined sharply, approximately 88 percent, from $199 million to $24 million, respectively. The trend in the ratio of net operating profits

1/ Data for 1970 do not include the stainless-steel plate, sheet, and strip operations of U.S. Steel, since only sales data were available.

to net sales parallels the trend in dollar profit by decreasing from 2.1 percent in 1970 to 0.6 percent in 1971 and then increasing to 13.0 percent in 1974. The operating profit ratio fell sharply to 2.7 percent for January-September 1975.

Stainless steel.--Thirteen domestic producers reported that total net sales and intercompany transfers of stainless steel increased steadily from $624 million in 1970 to $682 million in 1971, $800 million in 1972, $1.1 billion in 1973, and $1.6 billion in 1974 (table 45). Net sales of stainless steel dropped by almost 38 percent in January-September 1975, compared with net sales in the corresponding period in 1974.

Net operating profit on sales of stainless steel decreased from $17 million in 1970 to $7 million in 1971 and then increased sharply to $218 million in 1974. Net operating profit fell during January-September 1975 to $13 million, compared with $181 million during the corresponding period in 1974. A similar trend was followed by the ratios of operating profit to net sales: the return on sales decreased to 1.0 percent in 1971 from 2.8 percent in 1970, increased to 13.4 percent in 1974, and then suddenly dropped to 1.7 percent in January-September 1975.

Of the five product groupings included in the figures just discussed, the producers of stainless-steel rod recorded the poorest performance by showing an operating loss in 4 of the 5 years covered. Producers of stainless-steel bar and alloy tool steel sustained a loss in 2 of the 5 years but to a much lesser extent than the stainless-steel rod losses. Generally, producers of stainless-steel plate experienced the best rate of returns on sales and did not sustain any losses on sales during the period;

the producers of stainless-steel sheet and strip followed the plate producers closely with a slightly smaller return on sales, and did not report any losses until January-September 1975.

Alloy tool steel.--Total net sales and intercompany transfers reported by 10 domestic producers of alloy tool steel decreased from $136 million in 1970 to $128 million in 1971 and then increased thereafter to $155 million in 1972, $200 million in 1973, and $243 million in 1974 (table 45). Nine-month data reported for alloy tool steel for 1975 reveal the same trend as stainless steel has shown, and that is a decline in sales for January-September 1975, compared with January-September 1974. Net sales dropped almost 23 percent in January-September 1975 from the corresponding period in 1974.

Net operating losses sustained were $1.4 million in 1970 and $2.5 million in 1971 or 1.0 percent and 2.0 percent of net sales, respectively. As sales picked up in 1972, so did operating profits, going from $7 million in 1972 (4.4 percent of net sales) to $19 million in 1973 (9.4 percent of net sales) and finally to $26 million in 1974 (10.7 percent of net sales). Operating profit dropped off almost 35 percent to $11 million (8.1 percent of net sales) for January-September 1975 from $17 million (9.6 percent of net sales) for January-September 1974.

Of the 10 respondents, 5 reported net operating losses in 1970 and 1971 and 4 showed a loss in 1972, and then no further losses were reported until September 1975, when one company reported a net operating loss.

Flat-rolled stainless steel.--Twelve domestic producers of stainless-steel flat-rolled products reported a steady growth in sales from $458 million in 1970 to $516 million in 1971, $596 million in 1972, $852 million in 1973, and $1.2 billion in 1974 (table 45). Net sales of flat-rolled products dropped suddenly during January-September 1975 to $546 million from $937 million in January-September 1974, representing a decrease of almost 42 percent.

Net operating profit followed a slightly different trend by decreasing in 1971 to $14 million from $22 million in 1970, before increasing to $177 million in 1974. Net operating profit for January-September 1975 was reported at $8 million, as opposed to $152 million for the corresponding period in 1974. As a share of net sales, operating profit decreased from 4.9 percent in 1970 to 2.8 percent in 1971, increased to 14.2 percent in 1974, and then decreased again to 1.5 percent in January-September 1975.

Stainless-steel bar and rod and alloy tool steel.--The operations of the 13 responding domestic producers of stainless-steel bar and rod and alloy tool steel followed the same trend as that set by all stainless-steel and alloy tool steel producers. Total net sales and intercompany transfers decreased slightly from $302 million in 1970 to $294 million in 1971 and then increased steadily to $359 million in 1972, $484 million in 1973, and $631 million in 1974 (table 45). Sales decreased in January-September 1975 to $355 million, compared with $464 million during the corresponding period in 1974, a decrease of 23.5 percent.

The first 2 years of the 5-year period proved to be the worst years for the manufacturers of bar and rod and alloy tool steel, while a significant recovery ensued in the final year, just as it did in the overall stainless-steel industry. Net operating losses of $6 million and $10 million were sustained in 1970 and 1971, respectively. Operating profits were made in the remainder of the period, increasing from $11 million in 1972 to $67 million in 1974. An abrupt decline in profit was experienced during January-September 1975, when profit decreased to $16 million from the $47 million reported for the corresponding period in 1974.

Capital expenditures and research-and-development expenses.--The capital expenditures reported by 17 U.S. producers of stainless steel and/or alloy tool steel which were incurred in the development of stainless steel and alloy tool steel increased slightly from $51 million in 1971 to $57 million in 1972, decreased to $43 million in 1973, and then increased again to $81 million in 1974 (table 46). The capital expenditures budgeted by the respondents for 1975 and 1976 were reported to be $81 million and $114 million, respectively. Of the four major categories of expenditures shown in table 46, capital was predominantly expended on the machinery and equipment used in the production of stainless steel and alloy tool steel and ranged from an annual expenditure of $32 million to $60 million for the 1971-74 period and averaged about 75 percent of the total capital expenditures reported. Environmental control equipment received the next largest share of the total capital expenditures, ranging from 17 to 20 percent of that total. The two remaining categories, pertaining to land and buildings, received anywhere from 6 to 10 percent of the capital expenditures for 1970-74.

Research-and-development expenses were reported by 15 of the 17 respondents for the same period and totaled $9.2 million for 1971, $9.7 million for 1972, $11.5 million for 1973, and $13.5 million for 1974.

Summary.--During the 5-year period 1970-74, all of the product groupings covered in this section reflect similar trends in their operations on stainless steel and alloy tool steel. The years 1970-71 indicate a recessionary period for the domestic producers; however, sales, profits, and the return on sales began to pick up in 1972 and increased yearly, peaking in 1974.

The 9-month period January-September 1975 also revealed similar operating experience of the domestic producers. Each product grouping covered in this section showed a sudden, sharp drop in sales and earnings during this period as compared with the corresponding period in 1974. It appears that this sudden decline in operations in 1975 can be attributed to a decline in the quantity of sales, along with lower selling prices. Since the fixed costs of the domestic producers remain relatively the same no matter at what level of capacity they are operating, unit costs are going to rise when sales decline, because the fixed costs have to be absorbed by fewer units of sales. Therefore, profit fell because selling prices were not raised enough to cover the increase in unit cost.

## The Question of Imports as a Substantial Cause of Serious Injury

This section examines facts which bear on the relationship between imports and alleged injury or threat of injury to the domestic producers of stainless steel and alloy tool steel.

This section will review some factors which strongly influence the aggregate demand for all types of stainless steel and alloy tool steel. Apparent U.S. consumption of various groups of products will then be discussed.

Finally, this section will outline some possible causes of serious injury and examine these causes.

### Demand factors

The demand for stainless steel and alloy tool steel is derived from the demand for their end-product uses, such as automobiles, machinery, industrial equipment, appliances, electrical equipment, food-processing equipment, utensils, cutlery, LNG tankers, tools, dies, and other durable goods. The automotive market, one of the largest, has also been one of the fastest growing markets.

The durability of many articles made from stainless steel is a factor that permits discretion in the timing of purchases of replacement articles; consequently, cyclical fluctuations in the overall U.S. economy usually result in changes in demand for stainless-steel articles which are much wider than the changes that are applicable to nondurable goods and to most other types of durable goods. Furthermore, cyclical

declines in the demand for stainless steel and alloy tool steel have been of longer duration than the declines generally experienced by other types of durable goods industries.

U.S. consumption

Apparent annual U.S. consumption of total stainless steel and alloy tool steel rose yearly from 778,040 tons in 1970 to a record 1,375,551 tons in 1974 (table 1), increasing by 597,511 tons (76.8 percent). Apparent consumption during January-September 1975 amounted to 633,037 tons, a decline of 400,710 tons (38.8 percent) from the corresponding 1974 period.

All of the product categories for which the staff compiled data in this investigation exhibited similar increases in consumption from 1970 to 1974 and, except for stainless-steel plate, all exhibited declines in consumption during January-September 1975 compared with January-September 1974.

The table on the following page summarizes the increases in consumption in 1974 compared with 1970 and the 5-year average for 1970-74, and the decline in consumption during January-September 1975 compared with the corresponding 1974 period, for all of the product categories for which data were obtained.

Stainless steel and alloy tool steel: Increases and decreases in apparent consumption, 1974 over 1970 and 5-year average 1970-74, and January-September 1975 over January-September 1974

| Item | Increases in apparent consumption, 1974 over 1970 | | Increases in apparent consumption, 1974 over 5-year average 1970-74 | | Decreases in apparent consumption, Jan.-Sept. 1975 over Jan.-Sept. 1974 | |
|---|---|---|---|---|---|---|
| | Tons | Percent | Tons | Percent | Tons | Percent |
| Stainless steel and alloy tool steel, total 1/ | 597,511 | 77 | 352,582 | 34 | 400,710 | 39 |
| Stainless steel, total 1/ | 570,532 | 84 | 330,497 | 36 | 375,558 | 40 |
| Sheet and strip | 403,070 | 96 | 213,715 | 35 | 316,624 | 51 |
| Bar | 70, 86 | 61 | 41,004 | 28 | 40,438 | 29 |
| Plate | 81,045 | 126 | 59,791 | 70 | 3,951 | 4 |
| Rod | 21,712 | 89 | 14,795 | 47 | 10,888 | 34 |
| Alloy tool steel, total | 26,979 | 28 | 22,084 | 22 | 25,152 | 26 |
| Flat-rolled products | 484,215 | 100 | 269,606 | 39 | 320,575 | 44 |
| Stainless-steel bar and rod and alloy tool steel products | 119,377 | 50 | 77,881 | 28 | 76,478 | 28 |

1/ Includes Ingots, etc.

Possible important and substantial causes of serious injury or threat of serious injury

Two possible causes of serious injury or threat of serious injury affecting the U.S. industry under consideration are cyclical declines in the U.S. economy and the increase in imports. Both of the above causes have two effects in the marketplace, a quantity effect and a price effect.

Quantity effect.--The manner in which the decline in the U.S. economy and any increase in imports affects the relevant U.S. industry or industries can be best understood by a comparison of the increases or decreases in apparent consumption (shown on the preceding page) and the increases or decreases in imports (shown on p. A-27). This comparison is shown in the table below.

Stainless steel and alloy tool steel: Ratios of increase in imports to increase or decrease in consumption, 1974 over 5-year average 1970-74 and January-September 1975 over January-September 1974

(In percent)

| Item | Ratio of increases in imports to the increase in apparent consumption, 1974 over 5-year average 1970-74 | Ratio of increases in imports to the decrease in apparent consumption, January-September 1975 over January-September 1974 |
|---|---|---|
| Stainless steel and alloy tool steel, total | 3 | 6 |
| Stainless steel, total | 1 | 6 |
| Sheet and strip | - | 3 |
| Bars | 20 | 12 |
| Plate | 1 | 186 |
| Rods | 42 | 5 |
| Alloy tool steel, total | 25 | 10 |
| Flat-rolled products | - | 5 |
| Stainless-steel bar and rod and alloy tool steel | 26 | 10 |

As shown in the table above, the increase in imports as a share of the increase in consumption, 1974 over the 5-year average for 1970-74, was 20 percent or more for four product groupings: stainless-steel bar, 20 percent; stainless-steel rod, 42 percent; alloy tool steel, 25 percent; and stainless-steel bars and rods and alloy tool steel, 26 percent.

The ratios of the increase in imports in January-September 1975 over January-September 1974 to the decrease in consumption was 10 percent or more for four product groupings: stainless-steel bars, 12 percent; stainless-steel plate, 186 percent; alloy tool steel, 10 percent; and stainless-steel bar and rod and alloy tool steel, 10 percent.

The preceding comparisons should not be considered a strict mathematical model for measuring the impact of cyclical changes in the U.S. economy or the increase in imports on the industry or industries producing the various product categories considered here.

Market forces impacting on the economic health of the U.S. producers' stainless-steel and alloy tool steel operations seldom have been more dynamic than during the period under observation, January 1970-September 1975. Moreover, these forces were supplemented by Government actions which had effects on U.S. producers and importers of the products that varied from adverse to beneficial.

As mentioned early in this report, the Voluntary Restraint Agreement put no restrictions on the types of steel imported into the United States during 1969-71. Thus, imports of stainless steel and alloy tool steel increased vis-a-vis carbon steel because they were higher valued products and increased foreign exchange earnings for the exporting country. In 1972-74, the VRA was modified to place quantitative limits on stainless steel, alloy tool steel, and carbon steel. This action moderated the increase in imports of stainless

and alloy tool steel in the years 1972-74. From January 1972 through March 1974, U.S. price controls suppressed the U.S. producers' price for these products; however, the world price increased to levels equal to, or, depending on the product, above, the U.S. price. This caused many importers, particularly the Japanese, to limit exports to the United States. Finally, the Tariff Commission issued affirmative dumping determinations in the cases on stainless-steel plate from Sweden and stainless-steel rod from France in 1973. As a result, U.S. imports from Sweden and France of stainless-steel plate and rod tended to be limited.

The table on the following page compares the increases and decreases in consumption and imports for the 5-year average 1970-74 with those for the 5-year average 1965-69 and shows the share of this increase or decrease in consumption accounted for by the increase or decrease in imports.

Stainless steel and alloy tool steel: Increase or decrease in consumption and in imports and ratios of increase or decrease in imports to the increase or decrease in consumption, 5-year average 1970-74 over 5-year average 1965-69

| Item | Increase or (decrease) in consumption 5-year average 1970-74 over 5-year average 1965-69 | Increase or (decrease) in imports, 5-year average 1970-74 over 5-year average 1965-69 | Ratio of the increase or (decrease) in imports to the increase or (decrease) in consumption |
|---|---|---|---|
| | Tons | Tons | Percent |
| Stainless steel and alloy tool steel, total | 39,000 | 4,500 | 12 |
| Stainless steel, total | 64,800 | 1,100 | 2 |
| Sheet and strip | 87,200 | 9,000 | 10 |
| Bar | (10,000) | 10,100 | 101 |
| Plate | 18,400 | 8,100 | 44 |
| Rod | 7,200 | 2,700 | 38 |
| Ingots, blooms, slabs, billets, and sheet bars | (37,600) | (28,600) | - |
| Alloy tool steel, total | (25,900) | 3,400 | 13 |
| Flat-rolled products | 105,600 | 16,900 | 16 |
| Stainless-steel bar and rod and alloy tool steel | (28,700) | 16,200 | 56 |

Price effect.--The differences in prices between imported and domestic stainless steel and alloy tool steel products during a single period and the pattern of the differences over time reflect the dynamics of these market and nonmarket forces, which have been discussed earlier in this report. The data in the tables on the following pages indicate whether or not low-price competition was a temporary phenomenon or had permanent or lasting consequences over a period of several years.

Import price advantage, stainless steel: Percentage differentials 1/ between average lowest net selling prices 2/ received by importers and those received by U.S. producers from sales of selected types of stainless steel to steel service centers/ distributors or end users, 1970-73 and, by quarters, January 1974-September 1975

| Product and description | 1970 | 1971 | 1972 | 1973 | Jan.-March 1974 | April-June 1974 | July-Sept. 1974 | Oct.-Dec. 1974 | Jan.-March 1975 | April-June 1975 | July-Sept. 1975 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Stainless-steel plate: | | | | | | | | | | | |
| Grade 304, HRAP, 1/4" x 72" x 240" | (31) | (23) | (21) | (24) | (12) | (9) | (0.5) | (11) | (18) | (16) | (20) |
| Grade 316L, HRAP, 1/4" x 72" x 240" | (24) | (25) | (24) | (26) | - | (17) | 5 | (14) | (18) | (18) | (19) |
| Stainless-steel bar: | | | | | | | | | | | |
| Grade 303, cold-finished 1/2" round | (28) | (18) | (8) | (19) | (13) | (15) | (14) | (19) | (27) | (30) | (27) |
| Grade 304, cold-finished 1½" round | (34) | (19) | (12) | (6) | 13 | (3) | (27) | (28) | (34) | (35) | (33) |
| Grade 416, cold-finished 2" round | (33) | (11) | (8) | (3) | (6) | (16) | (15) | (22) | (30) | (24) | (24) |
| Stainless-steel sheet (cold-rolled): | | | | | | | | | | | |
| Grade 304, 2B finish, 8-14 gage x 36 x coil | (15) | (11) | (8) | 13 | 32 | 10 | 10 | 8 | (4) | 1 | (3) |
| Grade 430, 2B finish, 20 gage x coil | (19) | (21) | (20) | (2) | 2 | (4) | (19) | (10) | (22) | (25) | (24) |
| Stainless steel strip: | | | | | | | | | | | |
| Grade 430, 2 finish, .060" x 3" to 12" x coil 3/ | (30) | - | (21) | (17) | 1 | (7) | - | - | - | - | - |
| Stainless-steel wire rod: | | | | | | | | | | | |
| Grade 304, .217" round | (18) | (16) | (12) | 2 | 10 | (15) | (28) | (22) | (19) | (20) | (18) |

1/ Parentheses indicate that the import price was below the U.S. producers' price.
2/ Arithmetic average.
3/ Prices to end users.

Source: Appendix tables 32-37.

Import price advantage, alloy tool steel: Percentage differential [1] between average lowest net selling prices [2] received by importers and those received by U.S. producers from sales of selected types of tool steel to steel service centers/distributors, 1970-73 and, by quarters, January 1974-September 1975

| Product and description | 1970 | 1971 | 1972 | 1973 | Jan.-March 1974 | April-June 1974 | July-Sept. 1974 | Oct.-Dec. 1974 | Jan.-March 1975 | April-June 1975 | July-Sept. 1975 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alloy tool steel, high-speed bar: | | | | | | | | | | | |
| Grade M-2, 1" round, random lengths, cold-finished | (15) | (15) | (26) | (17) | (8) | (3) | (24) | - | - | - | (6) |
| Alloy tool steel bar: | | | | | | | | | | | |
| Grade D-2, 1-1/2" round, hot rolled, annealed | (60) | (43) | (49) | (29) | (23) | (25) | (26) | (41) | (40) | (37) | (35) |
| Grade D-2, 8-1/8" round, rough turned, annealed | (60) | (40) | (43) | (43) | (26) | (31) | (6) | (15) | (22) | (32) | (30) |
| Grade H-12, 9" round, rough turned, annealed | - | - | - | (22) | (21) | (18) | (24) | (30) | (33) | (38) | (28) |
| Grade O-1, 1" x 4", cold finished flat, decarb free | - | (29) | (23) | (19) | (14) | (27) | 7 | (22) | (10) | (9) | (12) |

1/ Parentheses indicate that the import price was below the U.S. producers' price.

2/ Arithmetic average.

Source: Appendix tables 38-43.

Import price advantage, alloy tool steel: Percentage differential 1/ between average lowest net selling prices 2/ received by importers and those received by U.S. producers from sales of related types of alloy tool steel to end-use customers, 1970-73 and, by quarters, January 1974-September 1975

| Product and description | 1970 | 1971 | 1972 | 1973 | Jan.-March 1974 | April-June 1974 | July-Sept. 1974 | Oct.-Dec. 1974 | Jan.-March 1975 | April-June 1975 | July-Sept. 1975 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alloy tool steel bar: | | | | | | | | | | | |
| Grade D-2, 1 1/2" round, hot rolled, annealed | (14) | 5 | (3) | (17) | 1 | (18) | (33) | (16) | (1) | (6) | (4) |
| Grade D-2, 8-1/8" round, rough turned, annealed | (16) | 2 | (16) | (35) | (26) | (27) | (15) | (19) | (30) | (42) | (32) |
| Grade H-12, 9" round, rough turned, annealed | - | - | - | (22) | (21) | (18) | (24) | (30) | (33) | (38) | (28) |
| Alloy tool steel, high speed rod: | | | | | | | | | | | |
| Grade M-7, .250" round, x hot rolled, annealed x coil | (28) | (22) | (28) | - | - | (46) | (45) | - | (54) | (48) | (52) |
| Alloy tool steel, high speed bar: | | | | | | | | | | | |
| Grade M-2, 1" round x random lengths, cold finished | - | (14) | (15) | (11) | (6) | (19) | (20) | (32) | (22) | (30) | (11) |

1/ Parentheses indicates that the import price was below the U.S. producers' price.
2/ Arithmetic average.

Source: Appendix tables 38-43.

Foreign producers, production capacity, and exports

Japan accounted for 43 percent (by quantity) of total U.S. imports of stainless steel in 1974 (table 5). Sweden was the source of 40 percent (by quantity) of total U.S. tool steel imports in 1974 (table 11). In 1974, these two countries together accounted for 53 percent of total import tonnage of the products covered by this investigation and 58 percent of their total value.

The tables on pages A-88 through A-91 present a profile of the Japanese and Swedish specialty steel industries on an individual-firm basis.

The Japanese industry.--There are 19 Japanese firms producing the specialty steel products covered by this investigation. They range in size from * * *, with total sales of * * * in 1974--largely * * * from carbon and alloy steel and other products and only marginally * * * from stainless steel--to eight small steel companies--with 1974 sales of $10 million to $100 million--whose production is highly specialized and concentrated in either flat-rolled stainless-steel products or stainless-steel bar and rod and/or tool steel.

Eight Japanese firms produce alloy tool steel. * * *, one of the five largest Japanese firms making products covered by this investigation, produces the largest volume.

Utilization of the capacity of the five largest firms producing stainless steel ranged from 75 to 99 percent in 1973 to 66 to 93 percent in 1974. Stainless-steel-capacity utilization among the smaller steel

mills increased from 1973 to 1974, but the peak level was lower than for the larger firms. The utilization of capacity to produce tool steel dropped continuously from 1973 through June 1975.

As of June 1975, Japanese capacity to produce finished stainless-steel products amounted to roughly 1.3 million metric tons. Although only partial data are available, they indicate that as a result of the recession, the percentage of unused capacity in Japan to manufacture stainless steel and alloy tool steel was considerably higher than in 1974.

The Swedish industry.--The Swedish industry producing stainless steel and alloy tool steel consists of five firms. It has achieved high profit levels, heavy capital expenditures in new capacity to produce the products covered by this investigation, higher utilization of capacity than the Japanese industry, and less fall-off in production in the recent past. The industry is characterized by a high degree of vertical integration, strong, company-controlled marketing programs, and heavy dependence on exports.

Japanese producers of stainless steel and alloy tool steel: Product lines, stainless steel manufacturing capacity, 1974, stainless steel production and capacity utilization, 1973 and 1974, and number of employees, 1973 and 1974

* * * * * * *

Japanese producers of stainless steel and alloy tool steel: Size as measured by share capital, 1975, sales, 1973 and 1974, and profitability, 1973, 1974, and iterim 1975

* * * * * * *

Swedish producers of stainless steel and alloy tool steel: Size as measured by share capital, 1975, and sales, 1973 and 1974, and profitability, 1973 and 1974

* * * * * * *

Swedish producers of stainless steel and alloy tool steel: Product lines, stainless steel manufacturing capacity, 1974, stainless steel production and capacity utilization, 1973 and 1974, and number of employees, 1973 and 1974

* * * * * * *

Foreign stainless steel production capacity.--Production of stainless steel by the major countries supplying that product to the U.S. market is shown in the table on the following page. The data show that production increased 24 percent from 1970 to 1974..

The table presents exports of stainless steel from the same countries. Exports from these countries increased 56 percent from 1970 to 1974. Exports for the major source countries not only take a larger share of foreign production than U.S. exports take of U.S. production, but the export share of foreign production has grown, increasing from 24 percent in 1970 to 31 percent in 1974.

Stainless-steel.--The relative importance of the U.S. market to leading countries which export stainless steel is shown in the table on page A-94. The U.S. market for stainless steel increased in importance for some countries during 1970-74 and decreased in importance for others. Five countries--France, West Germany, Italy, Sweden, and the United Kingdom--show increases in the percentage share of such exports that came to the United States. Only Belgium and Japan show a decline in their respective shares of stainless-steel exports to the U.S. market.

For European exporting countries, the Western European market is by far the most important, accounting for 50 to 90 percent of Europe's total stainless-steel exports, depending on the particular country. Japan's exports are evenly distributed among the free-world markets.

Stainless steel: Production and exports, by selected countries, 1970 and 1974

(In thousands of metric tons)

| Country | Production | | Exports | |
|---|---|---|---|---|
| | 1970 | 1974 | 1970 | 1974 |
| Belgium | 1/ | 1/ | 33 | 76 |
| France | 460 | 570 | 187 | 253 |
| West Germany | 556 | 741 | 109 | 233 |
| Italy | 238 | 312 | 60 | 60 |
| Spain | 1/ | 1/ | 26 | 52 |
| Sweden | 394 | 519 | 152 | 258 |
| United Kingdom | 291 | 257 | 26 | 52 |
| Japan | 1,643 | 2,037 | 273 | 369 |
| Total | 3,582 | 4,436 | 866 | 1,353 |

1/ Not Available.

Source: International Nickel Limited, World Stainless Steel Statistics, 1975.

Exports of stainless steel 1/ to the United States and other world markets, by sources, 1970 and 1974

| Source | Exports of stainless steel to-- | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | United States | | Other American countries | | Western Europe | | Other free-world countries | | People's Republic of China | | Other Communist countries | | Total | | | |
| | 1970 | 1974 | 1970 | 1974 | 1970 | 1974 | 1970 | 1974 | 1970 | 1974 | 1970 | 1974 | 1970 | | 1974 | |
| | Quantity (1,000 net metric tons) | | | | | | | | | | | | | | | |
| Belgium | 1.9 | 2.6 | 0.6 | 2.4 | 28.5 | 65.9 | 0.4 | 1.1 | - | 0.6 | 0.1 | 2.4 | 31.5 | | 74.9 | |
| France | 14.2 | 20.9 | 8.4 | 16.4 | 147.5 | 191.8 | 5.0 | 8.4 | - | - | 1.3 | 7.6 | 176.4 | | 245.1 | |
| West Germany | .9 | 3.5 | 3.7 | 14.3 | 90.1 | 149.9 | 1.7 | 7.2 | - | - | 5.5 | 44.4 | 102.3 | | 219.6 | |
| Italy | .6 | 1.5 | .3 | 1.6 | 52.7 | 36.8 | .6 | .3 | - | - | 3.7 | 8.7 | 58.0 | | 49.2 | |
| Spain | 2/ | 2/ | 2/ | 2/ | 2/ | 2/ | 2/ | 2/ | - | - | 2/ | 2/ | 3/ 22.1 | | 31.5 | |
| Sweden | 10.9 | 21.8 | 6.9 | 4/ 27.2 | 98.2 | 133.7 | 2.9 | 7.3 | - | - | 8.6 | 27.9 | 127.6 | | 217.1 | |
| United Kingdom | 1.2 | 7.2 | 2.3 | 8.2 | 8.5 | 20.0 | 2.5 | 6.4 | 2.0 | .6 | 2.1 | .9 | 18.6 | | 43.3 | |
| Japan | 84.4 | 68.4 | 26.2 | 50.4 | 69.9 | 80.5 | 76.5 | 126.8 | 12.9 | 14.5 | 3.6 | 28.3 | 273.0 | | 368.9 | |
| | Percent of total | | | | | | | | | | | | | | | |
| Belgium | 6.0 | 3.5 | 1.9 | 3.2 | 90.5 | 88.0 | 1.3 | 1.5 | - | 0.8 | 0.3 | 3.2 | 100.0 | | 100.0 | |
| France | 8.0 | 8.5 | 4.8 | 6.7 | 83.6 | 78.3 | 2.8 | 3.4 | - | - | .7 | 3.1 | 100.0 | | 100.0 | |
| West Germany | .9 | 1.6 | 3.6 | 6.5 | 88.1 | 68.3 | 1.7 | 3.3 | - | - | 5.4 | 20.2 | 100.0 | | 100.0 | |
| Italy | 1.0 | 3.0 | .5 | 3.3 | 90.9 | 74.8 | 1.0 | .6 | - | - | 6.4 | 17.7 | 100.0 | | 100.0 | |
| Spain | 2/ | 2/ | 2/ | 2/ | 2/ | 2/ | 2/ | 2/ | - | - | 2/ | 2/ | 100.0 | | 100.0 | |
| Sweden | 8.5 | 10.0 | 5.4 | 12.5 | 77.0 | 61.6 | 2.3 | 3.4 | - | - | 6.7 | 12.9 | 100.0 | | 100.0 | |
| United Kingdom | 6.5 | 16.6 | 12.4 | 18.9 | 45.7 | 46.2 | 13.4 | 14.8 | 10.8 | 1.4 | 11.3 | 2.1 | 100.0 | | 100.0 | |
| Japan | 30.9 | 18.5 | 9.6 | 13.7 | 25.6 | 21.8 | 28.0 | 34.4 | 4.7 | 3.9 | 1.3 | 7.7 | 100.0 | | 100.0 | |

1/ Excludes tubing except for Japan.
2/ Not available.
3/ Figure given for 1973.
4/ Most of the growth in 1970-74 was in exports to Brazil.

Source: International Nickel Limited, World Stainless Steel Statistics, 1975.

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

# APPENDIX B

Table 1.--Stainless steel products, alloy tool steel, and total stainless steel and alloy tool steel: U.S. producers' shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, by items, 1970-74, January-September 1974, and January-September 1975

| Item and period | U.S. producers' shipments | Exports | Imports | Apparent consumption | Ratio (percent) of imports to consumption |
|---|---|---|---|---|---|
| | Tons | Tons | Tons | Tons | Percent |
| Stainless steel products: 1/ | | | | | |
| 1970 | 605,853 | 77,893 | 153,273 | 681,233 | 22.5 |
| 1971 | 636,169 | 48,626 | 162,535 | 750,078 | 21.7 |
| 1972 | 783,880 | 56,485 | 120,474 | 847,869 | 14.2 |
| 1973 | 1,061,562 | 86,302 | 101,381 | 1,076,641 | 9.4 |
| 1974 | 1,234,924 | 122,518 | 139,359 | 1,251,765 | 11.1 |
| January-September-- | | | | | |
| 1974 | 949,615 | 98,665 | 86,544 | 937,494 | 9.2 |
| 1975 | 493,452 | 39,118 | 107,602 | 561,936 | 19.1 |
| Alloy tool steel: | | | | | |
| 1970 | 81,188 | 1,730 | 17,349 | 96,807 | 17.9 |
| 1971 | 68,051 | 2,084 | 12,601 | 78,568 | 16.0 |
| 1972 | 79,405 | 1,929 | 14,811 | 92,287 | 16.0 |
| 1973 | 97,797 | 3,819 | 23,083 | 117,061 | 19.7 |
| 1974 | 104,555 | 4,709 | 23,940 | 123,786 | 19.3 |
| January-September-- | | | | | |
| 1974 | 82,521 | 3,320 | 17,052 | 96,253 | 17.7 |
| 1975 | 55,709 | 4,129 | 19,521 | 71,101 | 27.5 |
| Stainless steel and alloy tool steel, total: | | | | | |
| 1970 | 687,041 | 79,623 | 170,622 | 778,0 0 | 21.9 |
| 1971 | 704,220 | 50,710 | 175,136 | 828,646 | 21.1 |
| 1972 | 863,384 | 58,414 | 135,285 | 940,156 | 14.4 |
| 1973 | 1,159,359 | 90,121 | 124,464 | 1,193,702 | 10.4 |
| 1974 | 1,339,479 | 127,227 | 163,299 | 1,375,551 | 11.9 |
| January-September-- | | | | | |
| 1974 | 1,032,136 | 101,985 | 103,596 | 1,033,747 | 10.0 |
| 1975 | 549,161 | 43,247 | 127,123 | 633,037 | 20.1 |

1/ Stainless steel pipe, tube, and wire were not specified in the Commission's notice of investigation.

Source: U.S. producers' shipments compiled from responses to questionnaires of the U.S. International Trade Commission; exports and imports compiled from official statistics of the U.S. Department of Commerce.

Table 2.--Flat rolled products and rod and bar products, including alloy tool steel: U.S. producers' shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, by items, 1970-74, January-September 1974, and January-September 1975

| Item and period | U.S. producers' shipments | Exports | Imports | Apparent consumption | Ratio of imports to consumption |
|---|---|---|---|---|---|
| | Tons | Tons | Tons | Tons | Percent |
| Flat rolled products (stainless steel sheet, strip, and plate): | | | | | |
| 1970 | 453,185 | 65,810 | 97,173 | 484,548 | 20.1 |
| 1971 | 494,753 | 40,944 | 117,509 | 571,318 | 20.6 |
| 1972 | 608,718 | 41,011 | 76,761 | 644,468 | 11.9 |
| 1973 | 816,906 | 64,872 | 55,952 | 807,986 | 6.9 |
| 1974 | 965,465 | 74,041 | 77,239 | 968,663 | 8.0 |
| January-September-- | | | | | |
| 1974 | 742,492 | 55,576 | 44,647 | 731,563 | 6.1 |
| 1975 | 372,961 | 24,548 | 62,575 | 410,988 | 15.2 |
| Rods and bars, including alloy tool steel: | | | | | |
| 1970 | 198,217 | 7,758 | 46,434 | 236,893 | 19.6 |
| 1971 | 185,736 | 5,863 | 42,229 | 222,102 | 19.0 |
| 1972 | 212,776 | 6,084 | 46,326 | 253,018 | 18.3 |
| 1973 | 374,619 | 10,733 | 59,984 | 323,870 | 18.5 |
| 1974 | 298,831 | 16,462 | 73,901 | 356,270 | 20.7 |
| January-September-- | | | | | |
| 1974 | 230,148 | 10,493 | 50,270 | 269,925 | 18.6 |
| 1975 | 145,667 | 10,098 | 57,878 | 193,447 | 29.9 |

Source: U.S. producers' shipments compiled from responses to questionnaires of the U.S. International Trade Commission; exports and imports compiled from official statistics of the U.S. Department of Commerce.

Table 3.--Stainless steel: U.S. producers' shipments, exports of domestic merchandise, imports for consumption, and apparent consumption, by product groups, 1970-74, January-September 1974, and January-September 1975

| Item and period | U.S. producers' shipments | Exports | Imports | Apparent consumption | Ratio of imports to consumption |
|---|---|---|---|---|---|
| | Tons | Tons | Tons | Tons | Percent |
| Stainless steel sheet and strip: | | | | | |
| 1970 | 393,900 | 62,721 | 88,832 | 420,011 | 21.1 |
| 1971 | 444,219 | 37,976 | 107,188 | 513,431 | 20.9 |
| 1972 | 552,037 | 38,957 | 59,645 | 572,725 | 10.4 |
| 1973 | 734,876 | 60,796 | 44,701 | 718,781 | 6.2 |
| 1974 | 825,298 | 67,105 | 64,888 | 823,081 | 7.9 |
| January-September-- | | | | | |
| 1974 | 639,134 | 49,773 | 37,948 | 627,309 | 6.0 |
| 1975 | 283,605 | 21,449 | 48,529 | 310,685 | 15.6 |
| Stainless steel bars: | | | | | |
| 1970 | 105,887 | 5,365 | 15,195 | 115,717 | 13.1 |
| 1971 | 107,344 | 3,477 | 16,229 | 120,096 | 13.5 |
| 1972 | 120,539 | 3,585 | 18,509 | 135,463 | 13.7 |
| 1973 | 155,795 | 6,405 | 20,137 | 169,527 | 11.9 |
| 1974 | 168,460 | 9,949 | 27,892 | 186,403 | 15.0 |
| January-September-- | | | | | |
| 1974 | 128,488 | 5,962 | 18,624 | 141,150 | 13.2 |
| 1975 | 83,181 | 5,734 | 23,265 | 100,712 | 23.1 |
| Stainless steel plates: | | | | | |
| 1970 | 59,285 | 3,089 | 8,341 | 64,537 | 12.9 |
| 1971 | 50,534 | 2,968 | 10,321 | 57,887 | 17.8 |
| 1972 | 56,681 | 2,054 | 17,116 | 71,743 | 23.9 |
| 1973 | 82,030 | 4,076 | 11,251 | 89,205 | 12.6 |
| 1974 | 140,167 | 6,936 | 12,351 | 145,582 | 8.9 |
| January-September-- | | | | | |
| 1974 | 103,358 | 5,803 | 6,699 | 104,254 | 6.4 |
| 1975 | 89,356 | 3,099 | 14,046 | 100,303 | 14.0 |
| Stainless steel rods: | | | | | |
| 1970 | 11,142 | 663 | 13,890 | 24,369 | 57.0 |
| 1971 | 10,341 | 302 | 13,399 | 23,438 | 57.2 |
| 1972 | 12,832 | 580 | 13,006 | 25,258 | 51.0 |
| 1973 | 21,027 | 509 | 16,764 | 37,282 | 45.0 |
| 1974 | 25,816 | 1,804 | 22,069 | 46,081 | 48.0 |
| January-September-- | | | | | |
| 1974 | 19,139 | 1,211 | 14,594 | 32,522 | 44.9 |
| 1975 | 6,777 | 235 | 15,092 | 21,634 | 69.8 |
| Stainless steel ingots, blooms, slabs, billets, and sheet bars: | | | | | |
| 1970 | 35,639 | 6,055 | 27,015 | 56,599 | 47.7 |
| 1971 | 23,841 | 3,903 | 15,398 | 35,336 | 43.6 |
| 1972 | 41,791 | 11,309 | 12,198 | 42,680 | 28.6 |
| 1973 | 67,834 | 14,516 | 8,528 | 61,846 | 13.8 |
| 1974 | 75,183 | 36,724 | 12,159 | 50,618 | 24.0 |
| January-September-- | | | | | |
| 1974 | 59,496 | 35,916 | 8,679 | 32,259 | 26.9 |
| 1975 | 30,533 | 8,601 | 6,670 | 28,602 | 23.8 |

Source: U.S. producers' shipments compiled from responses to questionnaires of the U.S. International Trade Commission; exports and imports compiled from official statistics of the U.S. Department of Commerce.

Table 4.--Stainless steel and tool steel: U.S. imports for consumption, by types, 1968 and 1969

(In tons)

| Item | 1968 | 1969 |
|---|---|---|
| Stainless steel and alloy tool steel, total | 168,100 | 177,100 |
| Stainless steel, total | 154,600 | 162,400 |
| Sheet and strip | 81,300 | 78,700 |
| Bars | 12,600 | 12,600 |
| Plate | 5,200 | 7,200 |
| Rods | 15,900 | 14,900 |
| Ingots, blooms, slabs, sheet bars, and billets | 39,600 | 49,000 |
| Alloy tool steel | 13,500 | 14,700 |
| Flat rolled products | 86,500 | 85,900 |
| Stainless steel bars, rods, and alloy tool steel products | 42,000 | 42,200 |

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

Table 5.--Total stainless-steel products, except pipes, tubes, and wire: U.S. imports for consumption, by principal sources, 1970-74, January-September 1974, and January-September 1975

| Source | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 | 5-year average, 1970-74 |
|---|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | | |
| Japan | 86,404 | 92,159 | 42,140 | 34,323 | 59,465 | 31,937 | 59,426 | 62,918 |
| Canada | 36,353 | 24,434 | 19,259 | 16,851 | 22,439 | 15,993 | 10,330 | 23,867 |
| France | 14,377 | 19,202 | 20,899 | 14,054 | 16,894 | 12,131 | 7,832 | 17,083 |
| Sweden | 8,644 | 12,712 | 21,649 | 16,508 | 15,112 | 11,054 | 11,364 | 14,925 |
| United Kingdom | 2,375 | 4,018 | 3,998 | 4,312 | 6,553 | 4,111 | 4,761 | 4,251 |
| Spain | 850 | 661 | 1,641 | 3,637 | 4,659 | 3,698 | 4,079 | 2,289 |
| West Germany | 1,124 | 5,120 | 2,910 | 1,863 | 4,170 | 1,680 | 2,410 | 3,037 |
| Brazil | 251 | 106 | 192 | 1,491 | 2,434 | 1,265 | 1,212 | 894 |
| Belgium | 1,764 | 2,237 | 2,635 | 2,550 | 1,797 | 1,166 | 2,688 | 2,196 |
| Republic of Korea | 34 | - | 1,550 | 1,402 | 1,642 | 427 | 1,532 | 925 |
| Austria | 134 | 457 | 557 | 655 | 821 | 663 | 499 | 524 |
| All other | 963 | 1,429 | 3,044 | 3,735 | 3,373 | 2,419 | 1,479 | 2,518 |
| Total | 153,273 | 162,535 | 120,474 | 101,381 | 139,359 | 86,544 | 107,602 | 135,404 |
| | Value (1,000 dollars) | | | | | | | |
| Japan | 74,720 | 76,942 | 35,855 | 32,868 | 70,516 | 34,592 | 73,709 | 58,180 |
| Canada | 19,733 | 12,756 | 10,965 | 10,911 | 17,998 | 12,204 | 10,175 | 14,472 |
| France | 10,064 | 14,787 | 16,188 | 12,706 | 17,795 | 12,373 | 9,922 | 14,182 |
| Sweden | 9,236 | 12,226 | 19,301 | 16,647 | 19,845 | 16,561 | 18,068 | 13,179 |
| United Kingdom | 2,611 | 3,206 | 3,499 | 4,444 | 8,570 | 5,311 | 6,437 | 4,466 |
| Spain | 626 | 551 | 1,435 | 3,328 | 4,786 | 3,642 | 4,822 | 2,145 |
| West Germany | 666 | 3,037 | 2,415 | 1,925 | 5,148 | 2,177 | 3,091 | 2,638 |
| Brazil | 250 | 102 | 152 | 1,568 | 3,041 | 1,532 | 1,906 | 1,022 |
| Belgium | 1,922 | 2,288 | 2,453 | 2,670 | 3,023 | 1,836 | 4,751 | 2,471 |
| Republic of Korea | 18 | - | 1,125 | 1,103 | 1,844 | 380 | 1,736 | 818 |
| Austria | 100 | 346 | 558 | 930 | 1,150 | 753 | 746 | 616 |
| All other | 485 | 942 | 2,877 | 2,505 | 3,212 | 2,106 | 1,330 | 2,004 |
| Total | 120,431 | 127,183 | 96,823 | 91,605 | 156,928 | 93,467 | 136,693 | 118,590 |
| | Percent of total quantity | | | | | | | |
| Japan | 56.4 | 56.7 | 35.0 | 33.9 | 42.7 | 36.9 | 55.2 | 44.9 |
| Canada | 23.7 | 15.0 | 16.0 | 16.6 | 16.1 | 18.4 | 9.6 | 17.5 |
| France | 9.4 | 11.8 | 17.3 | 13.9 | 12.1 | 14.0 | 7.2 | 12.9 |
| Sweden | 5.6 | 7.8 | 18.0 | 16.2 | 10.8 | 12.7 | 10.5 | 11.7 |
| United Kingdom | 1.5 | 2.5 | 3.3 | 4.3 | 4.7 | 4.7 | 4.4 | 3.3 |
| Spain | .6 | .4 | 1.4 | 3.6 | 3.3 | 4.2 | 3.7 | 1.9 |
| West Germany | .7 | 3.1 | 2.4 | 1.8 | 3.0 | 1.9 | 2.2 | 2.2 |
| Brazil | .2 | .1 | .2 | 1.5 | 1.7 | 1.4 | 1.1 | .7 |
| Belgium | 1.2 | 1.4 | 2.2 | 2.5 | 1.3 | 1.3 | 2.4 | 1.6 |
| Republic of Korea | 1/ | - | 1.3 | 1.4 | 1.2 | .4 | 1.4 | .8 |
| Austria | .1 | .3 | .5 | .6 | .6 | .7 | .4 | .4 |
| All other | .6 | .9 | 2.5 | 3.7 | 2.9 | 2.7 | 1.3 | 2.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Less than 0.05 percent.

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

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

Table 6.--Stainless steel sheet and strip: U.S. imports for consumption, by principal sources 1970-74, January-September 1974, and January-September 1975

| Source | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 | 5-year average, 1970-74 |
|---|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | | |
| Japan | 64,868 | 71,344 | 25,694 | 18,038 | 33,294 | 16,264 | 27,160 | 42,648 |
| France | 7,790 | 13,130 | 13,007 | 8,630 | 9,967 | 7,312 | 4,948 | 10,505 |
| Canada | 10,318 | 10,216 | 7,603 | 8,184 | 9,200 | 6,785 | 4,706 | 9,104 |
| Sweden | 4,215 | 5,828 | 6,976 | 5,630 | 6,681 | 5,065 | 6,142 | 5,866 |
| West Germany | 940 | 5,067 | 2,654 | 1,263 | 3,085 | 1,362 | 1,059 | 2,602 |
| Republic of Korea | | | 1,550 | 1,400 | 1,641 | 427 | 1,526 | 918 |
| United Kingdom | 637 | 674 | 1,016 | 1,022 | 860 | 598 | 1,230 | 842 |
| Austria | 19 | 126 | 88 | 81 | 56 | 47 | 107 | 74 |
| Spain | - | - | 3 | 38 | 28 | 26 | 185 | 14 |
| Belgium | 40 | 381 | 135 | 58 | 17 | 8 | 1,423 | 126 |
| Brazil | - | - | - | - | - | - | - | - |
| All other | 5 | 422 | 919 | 357 | 59 | 54 | 43 | 352 |
| Total | 88,832 | 107,188 | 59,645 | 44,701 | 64,888 | 37,948 | 48,529 | 73,051 |
| | Value (1,000 dollars) | | | | | | | |
| Japan | 57,465 | 59,416 | 21,386 | 16,979 | 39,201 | 17,663 | 31,857 | 38,889 |
| France | 5,466 | 10,244 | 9,515 | 6,854 | 9,784 | 6,943 | 5,482 | 8,373 |
| Canada | 6,446 | 5,376 | 4,656 | 5,527 | 7,987 | 5,806 | 4,030 | 5,998 |
| Sweden | 5,424 | 6,370 | 7,133 | 6,597 | 9,812 | 9,968 | 10,214 | 7,067 |
| West Germany | 605 | 2,998 | 2,184 | 1,336 | 4,093 | 1,737 | 1,333 | 2,243 |
| Republic of Korea | - | - | 1,125 | 1,102 | 1,843 | 380 | 1,731 | 814 |
| United Kingdom | 1,064 | 1,032 | 1,192 | 1,407 | 1,552 | 1,115 | 2,049 | 1,249 |
| Austria | 32 | 54 | 90 | 151 | 80 | 63 | 26 | 81 |
| Spain | - | - | 3 | 38 | 31 | 29 | 213 | 14 |
| Belgium | 25 | 301 | 73 | 41 | 22 | 9 | 2,009 | 92 |
| Brazil | - | - | - | - | - | - | - | - |
| All other | 5 | 334 | 1,419 | 347 | 60 | 55 | 75 | 2,165 |
| Total | 76,532 | 86,125 | 48,776 | 40,379 | 74,467 | 43,768 | 59,014 | 65,256 |
| | Percent of total quantity | | | | | | | |
| Japan | 73.0 | 66.6 | 43.1 | 40.4 | 51.3 | 42.9 | 56.0 | 58.4 |
| France | 8.8 | 12.3 | 21.8 | 19.3 | 15.4 | 19.3 | 10.2 | 14.4 |
| Canada | 11.6 | 9.5 | 12.7 | 18.3 | 14.2 | 17.9 | 9.7 | 12.5 |
| Sweden | 4.7 | 5.4 | 11.7 | 12.6 | 10.3 | 13.3 | 12.7 | 8.0 |
| West Germany | 1.1 | 4.7 | 4.4 | 2.8 | 4.8 | 1.1 | 2.2 | 3.6 |
| Republic of Korea | | | 2.6 | 3.1 | 2.5 | 1.6 | 3.1 | 1.3 |
| United Kingdom | .7 | .6 | 1.7 | 2.3 | 1.3 | .1 | 2.5 | 1.2 |
| Austria | 1/ | .1 | .1 | .2 | .1 | .1 | .2 | .1 |
| Spain | | | 1/ | .1 | 1/ | 1/ | 2.9 | 1/ |
| Belgium | 1/ | .4 | .2 | .1 | 1/ | 1/ | - | .2 |
| Brazil | - | - | - | - | - | - | - | - |
| All other | 1/ | .4 | 1.6 | .8 | .1 | .1 | .1 | .5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Less than 0.05 percent.

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

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

Table 7.--Stainless steel bars: U.S. imports for consumption, by principal sources, 1970-74, January-September 1974, and January-September 1975

| Source | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 | 5-year average, 1970-74 |
|---|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | | |
| Japan | 12,366 | 12,962 | 11,274 | 8,889 | 12,403 | 7,980 | 12,697 | 11,445 |
| Spain | 837 | 661 | 1,638 | 3,519 | 4,631 | 3,672 | 3,890 | 2,257 |
| Brazil | 251 | 106 | 192 | 1,491 | 2,434 | 1,265 | 1,212 | 895 |
| Sweden | 230 | 624 | 1,347 | 1,540 | 2,137 | 1,612 | 1,163 | 1,176 |
| United Kingdom | 84 | 151 | 463 | 1,556 | 1,603 | 967 | 905 | 771 |
| Canada | 589 | 531 | 502 | 760 | 1,510 | 999 | 1,322 | 778 |
| France | 430 | 642 | 1,849 | 1,313 | 882 | 666 | 433 | 1,023 |
| Austria | 105 | 331 | 469 | 570 | 758 | 611 | 392 | 447 |
| West Germany | 2 | 27 | 69 | 44 | 275 | 67 | 924 | 83 |
| Belgium | 37 | 34 | 354 | 10 | 1/ | - | - | 87 |
| Republic of Korea | 34 | - | - | - | - | - | 6 | 7 |
| All other | 230 | 160 | 352 | 445 | 1,259 | 785 | 321 | 489 |
| Total | 15,195 | 16,229 | 18,509 | 20,137 | 27,892 | 18,624 | 23,265 | 19,592 |
| | Value (1,000 dollars) | | | | | | | |
| Japan | 10,077 | 11,528 | 10,606 | 9,161 | 15,018 | 8,598 | 17,422 | 11,278 |
| Spain | 621 | 551 | 1,432 | 3,243 | 4,755 | 3,613 | 4,606 | 2,120 |
| Brazil | 250 | 102 | 152 | 1,568 | 3,041 | 1,532 | 1,906 | 1,023 |
| Sweden | 214 | 646 | 1,313 | 1,671 | 2,550 | 1,835 | 1,586 | 1,279 |
| United Kingdom | 78 | 184 | 466 | 1,551 | 1,990 | 1,139 | 1,244 | 854 |
| Canada | 446 | 511 | 474 | 707 | 1,875 | 1,083 | 1,852 | 803 |
| France | 384 | 427 | 1,508 | 1,315 | 943 | 783 | 607 | 915 |
| Austria | 64 | 292 | 468 | 775 | 1,061 | 682 | 720 | 532 |
| West Germany | 4 | 21 | 82 | 54 | 365 | 75 | 1,155 | 105 |
| Belgium | 44 | 31 | 321 | 9 | 1 | - | - | 81 |
| Republic of Korea | 18 | - | - | - | - | - | 5 | 4 |
| All other | 203 | 153 | 308 | 415 | 1,596 | 930 | 146 | 535 |
| Total | 12,403 | 14,446 | 17,130 | 20,469 | 33,195 | 20,270 | 31,249 | 19,530 |
| | Percent of total quantity | | | | | | | |
| Japan | 81.4 | 79.9 | 60.9 | 44.1 | 44.5 | 42.8 | 54.5 | 58.4 |
| Spain | 5.5 | 4.1 | 8.8 | 17.5 | 16.6 | 19.7 | 16.7 | 11.5 |
| Brazil | 1.7 | .7 | 1.0 | 7.4 | 8.7 | 6.8 | 5.2 | 4.6 |
| Sweden | 1.5 | 3.8 | 7.3 | 7.6 | 7.7 | 8.7 | 5.0 | 6.0 |
| United Kingdom | .6 | .9 | 2.5 | 7.7 | 5.7 | 5.2 | 3.9 | 3.9 |
| Canada | 3.9 | 3.3 | 2.7 | 3.8 | 5.4 | 5.4 | 5.7 | 4.0 |
| France | 2.8 | 4.0 | 10.0 | 6.5 | 3.2 | 3.6 | 1.9 | 5.2 |
| Austria | .7 | 2.0 | 2.5 | 2.8 | 2.7 | 3.3 | 1.7 | 2.3 |
| West Germany | 2/ | .2 | .4 | .2 | 1.0 | .4 | 4.0 | .4 |
| Belgium | .2 | .2 | 1.9 | 2/ | 2/ | - | - | .4 |
| Republic of Korea | .2 | - | - | - | - | - | 2/ | 2/ |
| All other | 1.5 | 1.0 | 2.0 | 2.4 | 4.5 | 4.2 | 1.4 | 2.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Less than 0.5 ton.
2/ Less than 0.05 percent.

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

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

Table 8.--Stainless steel plate: U.S. imports for consumption, by principal sources, 1970-74, January-September 1974, and January-September 1975

| Source | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 | 5-year average, 1970-74 |
|---|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | | |
| Japan | 5,483 | 3,834 | 2,341 | 3,212 | 6,096 | 2,634 | 9,255 | 4,193 |
| United Kingdom | 1,208 | 1,955 | 1,884 | 1,354 | 3,443 | 2,244 | 1,655 | 1,969 |
| Sweden | 1,580 | 3,922 | 9,990 | 4,605 | 1,256 | 860 | 1,782 | 4,271 |
| Canada | 2 | 91 | 95 | 215 | 548 | 174 | 479 | 190 |
| West Germany | | 4 | 126 | 478 | 231 | 195 | 288 | 168 |
| France | 53 | 286 | 1,425 | 268 | 40 | 39 | 112 | 414 |
| Belgium | - | - | 162 | - | 33 | 33 | 46 | 39 |
| Austria | - | - | - | - | 1 | - | - | 1/ |
| Spain | 13 | - | - | - | - | - | - | 3 |
| Brazil | - | - | - | - | - | - | - | - |
| Republic of Korea | - | - | - | - | - | - | - | - |
| All other | 2 | 229 | 1,093 | 1,119 | 703 | 520 | 429 | 629 |
| Total | 8,341 | 10,321 | 17,116 | 11,251 | 12,351 | 6,699 | 14,046 | 11,876 |
| | Value (1,000 dollars) | | | | | | | |
| Japan | 5,125 | 3,305 | 1,973 | 3,154 | 7,910 | 3,238 | 12,785 | 4,293 |
| United Kingdom | 1,342 | 1,629 | 1,555 | 1,198 | 4,689 | 2,735 | 2,797 | 2,083 |
| Sweden | 1,624 | 3,435 | 8,428 | 4,259 | 1,687 | 1,082 | 2,981 | 3,887 |
| Canada | 4 | 18 | 68 | 183 | 846 | 233 | 787 | 224 |
| West Germany | - | 4 | 100 | 459 | 378 | 304 | 516 | 188 |
| France | 36 | 210 | 1,169 | 265 | 54 | 54 | 116 | 347 |
| Belgium | - | - | 143 | - | 19 | 19 | 59 | 32 |
| Austria | - | - | - | - | 1 | - | - | 2/ |
| Spain | 5 | - | - | - | - | - | - | 1 |
| Brazil | - | - | - | - | - | - | - | - |
| Republic of Korea | - | - | - | - | - | - | - | - |
| All other | 1 | 178 | 842 | 991 | 755 | 565 | 509 | 553 |
| Total | 8,137 | 8,779 | 14,278 | 10,509 | 16,339 | 8,230 | 20,550 | 11,608 |
| | Percent of total quantity | | | | | | | |
| Japan | 65.7 | 37.0 | 13.7 | 28.5 | 49.4 | 39.4 | 65.9 | 35.3 |
| United Kingdom | 14.5 | 18.9 | 11.0 | 12.0 | 27.9 | 33.5 | 11.8 | 16.6 |
| Sweden | 18.9 | 38.2 | 58.7 | 40.9 | 10.2 | 12.8 | 12.7 | 35.9 |
| Canada | 3/ | .9 | .6 | 1.9 | 4.4 | 2.6 | 3.4 | 1.6 |
| West Germany | - | 3/ | .7 | 4.2 | 1.9 | 2.9 | 2.0 | 1.4 |
| France | .6 | 2.8 | 8.3 | 2.4 | .3 | .6 | .8 | 3.5 |
| Belgium | - | - | .9 | - | .3 | .5 | .3 | 3/ |
| Austria | - | - | - | - | 3/ | - | - | 3/ |
| Spain | .2 | - | - | - | - | - | - | 3/ |
| Brazil | - | - | - | - | - | - | - | - |
| Republic of Korea | - | - | - | - | - | - | - | - |
| All other | .1 | 2.2 | 6.4 | 10.1 | 5.7 | 8.4 | 3.1 | 5.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Less than 0.5 ton.
2/ Less than $500.
3/ Less than 0.05 percent.

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

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

Table 9.--Stainless steel wire rods: U.S. imports for consumption, by principal sources, 1970-74, January-September 1974, and January-September 1975

| Source | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 | 5-year average, 1970-74 |
|---|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | | |
| Japan | 3,602 | 4,019 | 2,831 | 3,837 | 7,398 | 4,785 | 8,457 | 4,337 |
| France | 5,236 | 4,624 | 4,517 | 3,843 | 6,004 | 4,114 | 2,317 | 4,845 |
| Sweden | 2,448 | 2,271 | 2,982 | 4,722 | 4,972 | 3,451 | 2,277 | 3,479 |
| Belgium | 1,687 | 1,822 | 1,984 | 2,482 | 1,747 | 1,125 | 1,219 | 1,944 |
| West Germany | 182 | 22 | 61 | 59 | 570 | 56 | 139 | 179 |
| Canada | - | 22 | - | 5 | 20 | 1/ | - | 13 |
| Austria | 10 | - | - | 4 | 6 | 5 | - | 4 |
| Brazil | - | - | - | - | - | - | - | - |
| Republic of Korea | - | - | - | - | - | - | - | - |
| Spain | - | - | - | - | - | - | - | - |
| United Kingdom | - | - | - | - | - | - | - | - |
| All other | 725 | 619 | 631 | 1,812 | 1,352 | 1,058 | 683 | 1,028 |
| Total | 13,890 | 13,399 | 13,006 | 16,764 | 22,069 | 14,594 | 15,092 | 15,826 |
| | Value (1,000 dollars) | | | | | | | |
| Japan | 2,002 | 2,693 | 1,890 | 3,301 | 8,157 | 4,863 | 10,168 | 3,609 |
| France | 3,693 | 3,534 | 3,907 | 4,270 | 7,013 | 4,593 | 3,687 | 4,483 |
| Sweden | 1,884 | 1,755 | 2,214 | 4,103 | 5,773 | 3,656 | 3,287 | 3,146 |
| Belgium | 1,854 | 1,956 | 1,916 | 2,620 | 2,981 | 1,808 | 2,683 | 2,265 |
| West Germany | 57 | 14 | 49 | 67 | 301 | 61 | 87 | 98 |
| Canada | - | 4 | - | 5 | 25 | 2/ | - | 7 |
| Austria | 5 | - | - | 4 | 9 | 8 | - | 4 |
| Brazil | - | - | - | - | - | - | - | - |
| Republic of Korea | - | - | - | - | - | - | - | - |
| Spain | - | - | - | - | - | - | - | - |
| United Kingdom | - | - | - | - | - | - | - | - |
| All other | 273 | 251 | 262 | 754 | 800 | 554 | 596 | 468 |
| Total | 9,768 | 10,207 | 10,238 | 15,124 | 25,059 | 15,543 | 20,508 | 14,079 |
| | Percent of total quantity | | | | | | | |
| Japan | 25.9 | 30.0 | 21.8 | 22.9 | 33.5 | 32.7 | 56.0 | 27.4 |
| France | 37.7 | 34.5 | 34.7 | 22.9 | 27.2 | 28.1 | 15.3 | 30.6 |
| Sweden | 17.6 | 16.9 | 22.9 | 28.2 | 22.5 | 23.6 | 15.0 | 22.0 |
| Belgium | 12.1 | 13.6 | 15.3 | 14.8 | 7.9 | 7.7 | 8.0 | 12.3 |
| West Germany | 1.3 | .2 | .5 | .4 | 2.6 | .3 | .9 | 1.1 |
| Canada | - | .2 | - | 3/ | .1 | 3/ | - | .1 |
| Austria | .1 | - | - | 3/ | 3/ | 3/ | - | 3/ |
| Brazil | - | - | - | - | - | - | - | - |
| Republic of Korea | - | - | - | - | - | - | - | - |
| Spain | - | - | - | - | - | - | - | - |
| United Kingdom | - | - | - | - | - | - | - | - |
| All other | 5.3 | 4.6 | 4.9 | 10.8 | 6.2 | 7.2 | 4.5 | 6.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Less than 0.5 tons.
2/ Less than $500.
3/ Less than 0.05 percent.

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

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

Table 10.--Stainless steel ingots, blooms, slabs, billets and sheet bars: U.S. imports for consumption, by principal sources, 1970-74, January-September 1974, and January-September 1975

| Source | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 | 5-year average, 1970-74 |
|---|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | | |
| Canada | 25,444 | 13,574 | 11,059 | 7,687 | 11,161 | 8,035 | 3,823 | 13,785 |
| United Kingdom | 446 | 1,238 | 635 | 380 | 647 | 302 | 971 | 669 |
| Japan | 85 | - | 1/ | 349 | 274 | 274 | 1,857 | 142 |
| Sweden | 171 | 27 | 354 | 11 | 66 | 66 | - | 126 |
| West Germany | - | - | - | 19 | 9 | - | - | 6 |
| Republic of Korea | - | - | - | 2 | 1 | - | - | 1 |
| France | 868 | 520 | 91 | - | 1 | - | 12 | 296 |
| Spain | - | - | - | 80 | - | - | 4 | 16 |
| Austria | - | - | - | - | - | - | - | - |
| Belgium | - | - | - | - | - | - | - | - |
| Brazil | - | - | - | - | - | - | - | - |
| All other | 1 | 39 | 59 | - | - | 2 | 3 | 20 |
| Total | 27,015 | 15,398 | 12,198 | 8,528 | 12,159 | 8,679 | 6,670 | 15,060 |
| | Value (1,000 dollars) | | | | | | | |
| Canada | 12,837 | 6,846 | 5,768 | 4,488 | 7,265 | 5,082 | 3,506 | 7,441 |
| United Kingdom | 127 | 361 | 286 | 289 | 339 | 322 | 352 | 280 |
| Japan | 51 | - | 2/ | 273 | 230 | 230 | 1,477 | 111 |
| Sweden | 90 | 19 | 213 | 11 | 23 | 20 | - | 71 |
| West Germany | - | - | - | 9 | 11 | - | - | 4 |
| Republic of Korea | - | - | - | 1 | 2 | - | - | 1 |
| France | 486 | 371 | 68 | - | 1 | - | 30 | 185 |
| Spain | - | - | - | 47 | - | - | 3 | 9 |
| Austria | - | - | - | - | - | - | - | - |
| Belgium | - | - | - | - | - | - | - | - |
| Brazil | - | - | - | - | - | - | - | - |
| All other | 1 | 29 | 46 | - | - | 2 | 4 | 15 |
| Total | 13,592 | 7,626 | 6,381 | 5,118 | 7,871 | 5,656 | 5,372 | 8,118 |
| | Percent of total quantity | | | | | | | |
| Canada | 94.2 | 88.2 | 90.7 | 90.1 | 91.8 | 92.6 | 57.3 | 91.5 |
| United Kingdom | 1.7 | 8.0 | 5.2 | 4.5 | 5.3 | 3.5 | 14.6 | 4.4 |
| Japan | .3 | - | 3/ | 4.1 | 2.3 | 3.2 | 27.8 | .9 |
| Sweden | .6 | .2 | 2.9 | .1 | .5 | .8 | - | .8 |
| West Germany | - | - | - | .2 | .1 | - | - | 3/ |
| Republic of Korea | - | - | - | 3/ | 3/ | - | - | 3/ |
| France | 3.2 | 3.4 | .7 | - | 3/ | - | .2 | 2.0 |
| Spain | - | - | - | - | - | - | 3/ | .1 |
| Austria | - | - | - | - | - | - | - | - |
| Belgium | - | - | - | - | - | - | - | - |
| Brazil | - | - | - | - | - | - | - | - |
| All other | 3/ | .3 | .5 | .1 | - | 3/ | 3/ | .1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Less than 0.5 ton.
2/ Less than $500.
3/ Less than 0.05 percent.

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

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

Table 11.--Alloy tool steel: U.S. imports for consumption, by principal sources, 1970-74, January-September 1974, and January-September 1975

| Source | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 | 5-year average, 1970-74 |
|---|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | | |
| Sweden | 6,038 | 3,814 | 6,248 | 9,460 | 9,544 | 6,413 | 7,713 | 7,021 |
| West Germany | 1,145 | 596 | 590 | 1,975 | 2,803 | 2,072 | 2,015 | 1,422 |
| Austria | 2,013 | 1,531 | 1,594 | 3,130 | 2,631 | 1,694 | 1,785 | 2,180 |
| Japan | 2,289 | 2,502 | 2,873 | 3,634 | 2,186 | 1,577 | 4,002 | 2,697 |
| Canada | 2,955 | 2,221 | 1,485 | 1,657 | 2,163 | 1,576 | 704 | 2,096 |
| Spain | - | - | - | 568 | 1,217 | 896 | 588 | 357 |
| United Kingdom | 1,018 | 540 | 700 | 1,106 | 1,092 | 842 | 761 | 891 |
| Poland | 187 | 394 | 440 | 390 | 814 | 720 | 373 | 445 |
| Finland | 315 | 12 | 6 | 140 | 412 | 338 | 867 | 177 |
| All other | 1,389 | 991 | 875 | 1,023 | 1,078 | 924 | 713 | 1,071 |
| Total | 17,349 | 12,601 | 14,811 | 23,083 | 23,940 | 17,052 | 19,521 | 18,357 |
| | Value (1,000 dollars) | | | | | | | |
| Sweden | 5,800 | 4,166 | 7,154 | 10,703 | 12,969 | 8,255 | 12,267 | 8,158 |
| West Germany | 842 | 655 | 637 | 1,336 | 2,182 | 1,855 | 1,889 | 1,130 |
| Austria | 1,646 | 1,229 | 1,659 | 3,621 | 3,011 | 2,192 | 2,551 | 2,233 |
| Japan | 1,158 | 1,577 | 2,912 | 2,413 | 2,765 | 1,885 | 5,974 | 2,165 |
| Canada | 2,973 | 1,813 | 1,621 | 1,629 | 3,019 | 2,177 | 925 | 2,191 |
| Spain | - | - | - | 578 | 1,020 | 780 | 515 | 320 |
| United Kingdom | 989 | 687 | 1,097 | 1,755 | 1,921 | 1,476 | 1,631 | 1,290 |
| Poland | 89 | 204 | 231 | 251 | 502 | 436 | 291 | 255 |
| Finland | 48 | 2 | 4 | 37 | 122 | 85 | 335 | 43 |
| All other | 647 | 531 | 691 | 677 | 827 | 659 | 778 | 675 |
| Total | 14,192 | 10,864 | 16,006 | 23,000 | 28,338 | 19,800 | 27,156 | 18,480 |
| | Percent of total quantity | | | | | | | |
| Sweden | 34.8 | 30.3 | 42.2 | 41.0 | 39.9 | 37.6 | 39.5 | 38.2 |
| West Germany | 6.6 | 4.7 | 4.0 | 8.6 | 11.7 | 12.1 | 10.3 | 7.7 |
| Austria | 11.2 | 12.2 | 10.8 | 13.3 | 11.0 | 9.9 | 9.1 | 11.9 |
| Japan | 13.2 | 19.9 | 19.4 | 15.7 | 9.1 | 9.2 | 20.5 | 14.7 |
| Canada | 17.1 | 17.6 | 10.0 | 7.2 | 9.0 | 9.2 | 3.6 | 11.4 |
| Spain | - | - | - | 2.5 | 5.1 | 5.2 | 3.0 | 1.9 |
| United Kingdom | 5.9 | 4.3 | 4.7 | 4.8 | 4.6 | 4.9 | 3.8 | 4.9 |
| Poland | 1.1 | 3.1 | 3.0 | 1.7 | 3.4 | 4.2 | 1.9 | 2.4 |
| Finland | 1.8 | 1/ | 1/ | .6 | 1.7 | 1.9 | 4.4 | 1.0 |
| All other | 8.0 | 7.8 | 5.9 | 4.4 | 4.5 | 5.4 | 3.6 | 5.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Less than 0.05 percent.

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

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

Table 12.--Tool steel bars: U.S. imports for consumption, by principal sources, 1970-74, January-September 1974, and January-September 1975

| Source | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 | 5-year average, 1970-74 |
|---|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | | |
| Sweden | 3,854 | 2,565 | 3,573 | 5,936 | 6,409 | 4,303 | 5,676 | 4,467 |
| Austria | 1,980 | 1,462 | 1,498 | 2,717 | 2,359 | 1,464 | 1,743 | 2,003 |
| Canada | 2,955 | 2,164 | 1,480 | 1,603 | 1,990 | 1,484 | 652 | 2,038 |
| West Germany | 556 | 535 | 527 | 855 | 1,678 | 1,081 | 1,542 | 830 |
| Japan | 1,435 | 2,126 | 2,156 | 840 | 1,265 | 974 | 2,483 | 1,564 |
| Spain | - | - | - | 568 | 1,217 | 896 | 588 | 357 |
| United Kingdom | 942 | 534 | 681 | 1,060 | 1,042 | 797 | 616 | 852 |
| Poland | 187 | 394 | 440 | 390 | 814 | 720 | 373 | 445 |
| Finland | - | 12 | 6 | - | 74 | - | 867 | 18 |
| All other | 659 | 890 | 583 | 441 | 748 | 623 | 648 | 664 |
| Total | 12,568 | 10,682 | 10,944 | 14,410 | 17,596 | 12,342 | 15,188 | 13,240 |
| | Value (1,000 dollars) | | | | | | | |
| Sweden | 3,477 | 2,362 | 3,357 | 5,583 | 7,601 | 4,919 | 8,080 | 4,476 |
| Austria | 1,571 | 1,061 | 1,481 | 2,688 | 2,556 | 1,791 | 2,431 | 1,871 |
| Canada | 2,973 | 1,803 | 1,615 | 1,534 | 2,574 | 1,966 | 782 | 2,100 |
| West Germany | 506 | 530 | 506 | 840 | 1,673 | 1,433 | 1,647 | 811 |
| Japan | 962 | 1,490 | 2,197 | 1,537 | 1,862 | 1,181 | 4,254 | 1,610 |
| Spain | - | - | - | 578 | 1,020 | 780 | 515 | 320 |
| United Kingdom | 936 | 674 | 1,049 | 1,656 | 1,862 | 1,433 | 1,337 | 1,235 |
| Poland | 89 | 204 | 231 | 251 | 502 | 436 | 291 | 255 |
| Finland | - | 2 | 4 | - | 37 | - | 335 | 7 |
| All other | 392 | 380 | 449 | 370 | 630 | 479 | 681 | 444 |
| Total | 10,906 | 8,506 | 10,889 | 15,037 | 20,317 | 14,418 | 20,353 | 13,131 |
| | Percent of total quantity | | | | | | | |
| Sweden | 30.7 | 24.0 | 32.6 | 41.2 | 36.4 | 34.8 | 37.3 | 33.7 |
| Austria | 15.8 | 13.7 | 13.7 | 18.9 | 13.4 | 11.8 | 11.4 | 15.1 |
| Canada | 23.5 | 20.3 | 13.5 | 11.1 | 11.3 | 12.0 | 4.2 | 15.4 |
| West Germany | 4.4 | 5.0 | 4.8 | 5.9 | 9.5 | 8.7 | 10.1 | 6.3 |
| Japan | 11.4 | 19.9 | 19.7 | 5.8 | 7.2 | 7.0 | 16.3 | 11.8 |
| Spain | - | - | - | 3.9 | 6.9 | 7.2 | 3.8 | 2.7 |
| United Kingdom | 7.5 | 5.0 | 6.2 | 7.4 | 5.9 | 6.4 | 4.0 | 6.4 |
| Poland | 1.5 | 3.7 | 4.0 | 2.7 | 4.6 | 5.8 | 2.4 | 3.4 |
| Finland | - | .1 | .1 | - | .4 | - | 5.7 | .1 |
| All other | 5.2 | 8.3 | 5.4 | 3.1 | 4.5 | 5.0 | 4.2 | 5.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

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

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

Table 13.--Tool steel rod: U.S. imports for consumption, by principal sources, 1970-74, January-September 1974, and January-September 1975

| Source | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- 1974 | Jan.-Sept.-- 1975 | 5-year average, 1970-74 |
|---|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | | |
| Sweden | 2,155 | 1,235 | 2,650 | 3,514 | 3,110 | 2,085 | 1,947 | 2,533 |
| West Germany | 488 | 2 | - | 1,063 | 1,123 | 991 | 464 | 535 |
| Japan | 844 | 273 | 712 | 2,794 | 921 | 601 | 1,519 | 1,109 |
| Finland | 315 | - | - | 140 | 388 | 338 | - | 91 |
| Austria | - | - | 56 | 336 | 256 | 221 | 4 | 130 |
| Canada | - | 56 | - | 54 | 173 | 92 | 52 | 57 |
| United Kingdom | 68 | - | - | 8 | 22 | 22 | 76 | 20 |
| Poland | - | - | - | - | - | - | - | - |
| Spain | - | - | - | - | - | - | - | - |
| All other | 698 | 54 | 282 | 565 | 330 | 301 | 65 | 386 |
| Total | 4,568 | 1,620 | 3,700 | 8,474 | 6,273 | 4,651 | 4,127 | 4,927 |
| | Value (1,000 dollars) | | | | | | | |
| Sweden | 2,301 | 1,792 | 3,770 | 5,110 | 5,341 | 3,310 | 4,079 | 3,663 |
| West Germany | 117 | 1 | - | 354 | 505 | 418 | 221 | 196 |
| Japan | 190 | 65 | 710 | 876 | 903 | 704 | 1,720 | 509 |
| Finland | 48 | - | - | 37 | 85 | 85 | - | 34 |
| Austria | - | - | 78 | 763 | 423 | 369 | 12 | 253 |
| Canada | - | 8 | - | 95 | 445 | 211 | 142 | 110 |
| United Kingdom | 41 | - | 4 | 4 | 11 | 11 | 51 | 13 |
| Poland | - | - | - | - | - | - | - | - |
| Spain | - | - | - | - | - | - | - | - |
| All others | 196 | 29 | 191 | 290 | 198 | 180 | 97 | 181 |
| Total | 2,893 | 1,895 | 4,753 | 7,536 | 7,908 | 5,288 | 6,322 | 4,905 |
| | Percent of total quantity | | | | | | | |
| Sweden | 47.2 | 76.2 | 71.6 | 41.5 | 49.6 | 44.8 | 47.1 | 51.4 |
| West Germany | 10.7 | .1 | - | 12.5 | 17.9 | 21.3 | 11.2 | 10.9 |
| Japan | 18.5 | 16.9 | 19.2 | 33.0 | 14.7 | 12.9 | 36.7 | 22.5 |
| Finland | 6.9 | - | - | 1.7 | 5.4 | 7.2 | - | 1.8 |
| Austria | - | - | 1.5 | 4.0 | 4.1 | 4.7 | 1/ | 2.6 |
| Canada | - | 3.5 | - | .6 | 2.8 | 1.9 | 1.2 | 1.2 |
| United Kingdom | 1.5 | - | - | .1 | .4 | .4 | 1.8 | .4 |
| Poland | - | - | - | - | - | - | - | - |
| Spain | - | - | - | - | - | - | - | - |
| All other | 15.3 | 3.3 | 7.7 | 6.7 | 5.3 | 6.4 | 1.5 | 7.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Less than 0.05 percent.

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

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

Table 14.--All other forms of tool steel except hollow drill: U.S. imports for consumption, by principal sources, 1970-74, January-September 1974, and January-September 1975

| Source | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-Sept.-- | | 5-year average, 1970-74 |
|---|---|---|---|---|---|---|---|---|
| | | | | | | 1974 | 1975 | |
| | Quantity (tons) | | | | | | | |
| United Kingdom | 8 | 6 | 19 | 38 | 28 | 23 | 69 | 20 |
| Sweden | 29 | 14 | 25 | 10 | 25 | 25 | 90 | 21 |
| Austria | 33 | 69 | 40 | 77 | 16 | 9 | 38 | 47 |
| West Germany | 101 | 59 | 63 | 57 | 2 | 2 | 9 | 56 |
| Japan | 10 | 108 | 5 | - | - | - | - | 27 |
| Canada | - | 1 | - | 1/ | - | - | 1/ | 1/ |
| Finland | - | - | - | - | - | - | - | - |
| Poland | - | - | - | - | - | - | - | - |
| Spain | - | - | - | - | - | - | - | - |
| All other | 32 | 42 | 15 | 17 | - | - | - | 21 |
| Total | 213 | 299 | 167 | 199 | 71 | 59 | 206 | 190 |
| | Value (1,000 dollars) | | | | | | | |
| United Kingdom | 12 | 14 | 49 | 95 | 49 | 32 | 243 | 44 |
| Sweden | 22 | 12 | 27 | 9 | 26 | 26 | 108 | 17 |
| Austria | 74 | 168 | 100 | 170 | 32 | 32 | 108 | 95 |
| West Germany | 219 | 124 | 131 | 143 | 4 | 4 | 21 | 124 |
| Japan | 6 | 21 | 5 | - | - | - | - | 6 |
| Canada | - | 2 | 6 | 2/ | - | - | 1 | 1 |
| Finland | - | - | - | - | - | - | - | - |
| Poland | - | - | - | - | - | - | - | - |
| Spain | - | - | - | - | - | - | - | - |
| All other | 60 | 123 | 50 | 17 | - | - | - | - |
| Total | 393 | 464 | 368 | 434 | 111 | 94 | 481 | 50 |
| | Percent of total quantity | | | | | | | |
| United Kingdom | 3.8 | 2.0 | 11.0 | 19.1 | 39.5 | 40.4 | 33.4 | 10.5 |
| Sweden | 13.6 | 4.8 | 14.5 | 5.0 | 35.2 | 43.9 | 43.7 | 11.1 |
| Austria | 15.5 | 23.5 | 23.3 | 38.7 | 22.5 | 15.8 | 18.4 | 24.7 |
| West Germany | 47.4 | 20.1 | 36.6 | 28.6 | 2.8 | 3.5 | 4.4 | 29.5 |
| Japan | 4.7 | 35.0 | 2.9 | - | - | - | - | 14.2 |
| Canada | - | .3 | 2.9 | - | - | - | - | - |
| Finland | - | - | - | - | - | - | - | - |
| Poland | - | - | - | - | - | - | - | - |
| Spain | - | - | - | - | - | - | - | - |
| All other | 15.0 | 14.3 | 8.8 | 8.6 | - | - | - | 11.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

1/ Less than 0.5 ton.
2/ Less than $500.

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

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

Table 15.--Capacity to melt stainless steel and tool steel, capacity to roll stainless steel plates, sheets, and strip, and capacity to manufacture stainless steel bars, stainless steel rods, and tool steel, 1970-74, January-September 1974, and January-September 1975

(In tons)

| Period | Capacity to melt-- | | | Capacity to roll stainless steel plates, sheets, and strip | Capacity to manufacture-- | | |
|---|---|---|---|---|---|---|---|
| | Stainless steel | Tool steel | Stainless and tool steel, total | | Stainless steel rods | Stainless steel bars | Tool steel, all forms |
| 1970 | 2,168,150 | 293,000 | 2,461,150 | 1,131,468 | 69,200 | 175,700 | 143,800 |
| 1971 | 2,179,500 | 284,250 | 2,463,750 | 1,152,105 | 67,900 | 175,700 | 139,800 |
| 1972 | 2,250,000 | 285,150 | 2,535,150 | 1,221,433 | 71,400 | 176,700 | 139,800 |
| 1973 | 2,279,500 | 285,150 | 2,564,650 | 1,271,558 | 73,300 | 201,900 | 139,800 |
| 1974 | 2,295,700 | 286,250 | 2,581,950 | 1,273,705 | 74,300 | 202,900 | 139,700 |
| Jan.-Sept.-- | | | | | | | |
| 1974 | 1,671,050 | 229,600 | 1,900,650 | 968,938 | 55,525 | 155,200 | 113,725 |
| 1975 | 1,680,050 | 229,600 | 1,909,650 | 987,647 | 55,525 | 156,700 | 113,725 |

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

Table 16.--Utilization of the capacity to melt stainless steel and tool steel, of the capacity to roll stainless steel plates, sheets, and strip, and of the capacity to manufacture stainless steel bars, stainless steel rods, and tool steel, 1970-74, January-September 1974, and January-September 1975

(In percent)

| Period | Capacity to melt-- | | | Capacity to roll stainless steel plates, sheets, and strip | Capacity to manufacture-- | | |
|---|---|---|---|---|---|---|---|
| | Stainless steel | Tool steel | Stainless and tool steel, total | | Stainless steel rods | Stainless steel bars | Tool steel all forms |
| 1970 | 54.1 | 38.8 | 52.3 | 42.0 | 54.4 | 61.8 | 54.5 |
| 1971 | 54.1 | 40.3 | 52.5 | 46.0 | 51.6 | 61.4 | 53.7 |
| 1972 | 64.4 | 50.5 | 62.8 | 54.8 | 64.8 | 70.1 | 65.1 |
| 1973 | 75.6 | 59.5 | 73.7 | 66.6 | 79.7 | 74.6 | 81.6 |
| 1974 | 89.3 | 62.3 | 86.3 | 75.7 | 85.2 | 86.9 | 89.1 |
| Jan.-Sept.-- | | | | | | | |
| 1974 | 97.3 | 58.3 | 92.6 | 83.2 | 86.2 | 86.6 | 79.6 |
| 1975 | 44.7 | 31.2 | 43.0 | 37.4 | 30.6 | 50.3 | 47.2 |

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

Table 17.--Stainless steel and tool steel: U.S. production, total, and by types, 1970-74, January-September 1974, and January-September 1975

(In tons)

| Item | 1970 | 1971 | 1972 | 1973 | 1974 | January-September-- | |
|---|---|---|---|---|---|---|---|
| | | | | | | 1974 | 1975 |
| Stainless steel and alloy tool steel, total | 700,313 | 747,923 | 930,997 | 1,170,235 | 1,328,532 | 1,079,112 | 518,768 |
| Stainless steel, total | 621,875 | 672,781 | 840,048 | 1,056,137 | 1,203,995 | 988,568 | 465,138 |
| Sheet and strip | 415,007 | 480,027 | 609,372 | 763,781 | 820,025 | 684,919 | 281,738 |
| Bars | 108,618 | 107,803 | 123,888 | 150,710 | 176,245 | 134,374 | 78,838 |
| Plate | 60,617 | 49,936 | 60,525 | 83,198 | 144,344 | 121,435 | 87,576 |
| Rods | 37,633 | 35,015 | 46,263 | 58,448 | 63,281 | 47,840 | 16,986 |
| Alloy tool steel | 78,438 | 75,142 | 90,949 | 114,098 | 124,537 | 90,544 | 53,630 |
| Flat rolled products | 475,624 | 529,963 | 669,897 | 846,979 | 964,369 | 806,354 | 369,314 |
| Stainless steel bars, rods, and alloy tool steel products | 224,689 | 217,960 | 261,100 | 323,256 | 364,163 | 272,758 | 149,454 |

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

Table 18.--Stainless steel and tool steel: Domestic shipments of U.S.-made stainless steel, by types, and tool steel, 1970-74 and, by quarters, January 1974-September 1975

| Period | Stainless steel | | | | | | Tool steel, all forms |
|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets | Plate | Sheet and strip | Rods | Bars | Total | |
| | Quantity (tons) | | | | | | |
| 1970 | 35,639 | 59,285 | 393,900 | 11,142 | 105,887 | 605,853 | 81,188 |
| 1971 | 23,841 | 50,534 | 444,219 | 10,341 | 107,344 | 636,169 | 68,051 |
| 1972 | 41,791 | 56,681 | 552,037 | 12,832 | 120,539 | 783,880 | 79,405 |
| 1973 | 67,834 | 82,030 | 734,876 | 21,027 | 155,795 | 1,061,562 | 97,797 |
| 1974 | 75,183 | 140,167 | 825,298 | 25,816 | 168,460 | 1,234,924 | 104,555 |
| January-March | 25,920 | 27,708 | 201,634 | 5,899 | 43,660 | 304,821 | 28,567 |
| April-June | 22,616 | 38,730 | 225,684 | 7,231 | 44,534 | 338,795 | 29,252 |
| July-September | 10,960 | 36,920 | 211,816 | 6,009 | 40,294 | 305,999 | 24,702 |
| October-December | 15,687 | 36,809 | 186,164 | 6,677 | 39,972 | 285,309 | 23,384 |
| 1975: | | | | | | | |
| January-March | 14,937 | 39,155 | 107,612 | 3,764 | 32,759 | 198,227 | 19,479 |
| April-June | 9,451 | 28,587 | 70,870 | 1,610 | 29,297 | 139,815 | 16,718 |
| July-September | 6,145 | 21,614 | 105,123 | 1,403 | 21,125 | 155,410 | 19,512 |
| | Value (1,000 dollars) | | | | | | |
| 1970 | 26,996 | 119,821 | 435,836 | 13,125 | 151,805 | 747,583 | 133,420 |
| 1971 | 19,828 | 70,180 | 502,741 | 12,860 | 149,020 | 754,629 | 121,433 |
| 1972 | 26,940 | 76,061 | 579,549 | 16,240 | 172,107 | 870,847 | 143,438 |
| 1973 | 65,675 | 142,752 | 776,692 | 28,956 | 234,776 | 1,248,851 | 185,149 |
| 1974 | 68,467 | 246,772 | 1,142,030 | 44,953 | 328,585 | 1,830,807 | 234,388 |
| January-March | 18,465 | 41,358 | 246,219 | 8,211 | 72,637 | 386,890 | 55,719 |
| April-June | 19,162 | 64,621 | 300,725 | 12,313 | 83,610 | 480,431 | 61,246 |
| July-September | 12,457 | 67,955 | 313,961 | 11,351 | 84,618 | 490,342 | 58,537 |
| October-December | 18,383 | 72,838 | 281,125 | 13,078 | 87,720 | 473,144 | 61,048 |
| 1975: | | | | | | | |
| January-March | 29,400 | 73,503 | 170,669 | 7,513 | 79,242 | 360,327 | 53,297 |
| April-June | 10,539 | 56,462 | 127,309 | 4,186 | 66,061 | 264,557 | 44,773 |
| July-September | 8,182 | 42,604 | 153,334 | 3,430 | 47,909 | 255,459 | 44,165 |

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

Table 19.--Stainless steel and tool steel: Average unit value of U.S. producers' shipments and U.S. producers' cost of goods sold, by types, 1970-74 and, by quarters, January 1974-September 1975

(Per pound)

| Period | Stainless steel | | | | | | Tool steel, all forms |
|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets | Plate | Sheet and strip | Rods | Bars | Total | |
| | Average unit value of U.S. producers' shipments | | | | | | |
| 1970 | $0.38 | $1.01 | $0.63 | $0.59 | $0.72 | $0.62 | $0.82 |
| 1971 | .42 | .69 | .57 | .62 | .69 | .59 | .89 |
| 1972 | .32 | .67 | .52 | .63 | .71 | .56 | .90 |
| 1973 | .48 | .87 | .53 | .69 | .75 | .59 | .95 |
| 1974 | .46 | .88 | .69 | .87 | .98 | .74 | 1.12 |
| January-March | .36 | .75 | .61 | .70 | .85 | .63 | .98 |
| April-June | .42 | .83 | .67 | .85 | .94 | .71 | 1.05 |
| July-September | .57 | .92 | .74 | .94 | 1.05 | .80 | 1.18 |
| October-December | .59 | .99 | .76 | .98 | 1.10 | .83 | 1.31 |
| 1975: | | | | | | | |
| January-March | .98 | .94 | .79 | 1.00 | 1.21 | .91 | 1.37 |
| April-June | .56 | .99 | .90 | 1.30 | 1.13 | .95 | 1.34 |
| July-September | .67 | .99 | .73 | 1.22 | 1.13 | .82 | 1.13 |
| | Average unit value of U.S. producers' cost of goods sold | | | | | | |
| 1970 | 1/ | $0.59 | $0.65 | $0.52 | $0.64 | $0.64 | $0.77 |
| 1971 | 1/ | .87 | .56 | .71 | .62 | .58 | .85 |
| 1972 | 1/ | .88 | .50 | .65 | .64 | .54 | .85 |
| 1973 | 1/ | .81 | .50 | .68 | .74 | .54 | 1.00 |
| 1974 | 1/ | .86 | .59 | .67 | .84 | .65 | 1.02 |
| January-March | 1/ | .82 | .52 | .60 | .76 | .60 | 1.04 |
| April-June | 1/ | .83 | .54 | .62 | .79 | .62 | .99 |
| July-September | 1/ | .84 | .57 | .65 | .80 | .62 | .98 |
| October-December | 1/ | .86 | .65 | .73 | .90 | .70 | 1.03 |
| 1975: | | | | | | | |
| January-March | 1/ | .83 | .75 | .83 | .95 | .78 | 1.05 |
| April-June | 1/ | .81 | .80 | .93 | 1.04 | .83 | 1.07 |
| July-September | 1/ | .80 | .82 | 1.03 | 1.08 | .85 | 1.09 |

1/ Not available.

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

Table 20.--Stainless steel and tool steel: Average unit value of U.S. importers' sales price to U.S. consumers and average unit value of purchase price paid by U.S. importers to foreign producers, by types, 1970-74 and, by quarters, January 1974-September 1975

(Per pound)

| Period | Stainless steel | | | | | | Tool steel, all forms |
|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets | Plate | Sheet and strip | Rods | Bars | Total | |
| | Average unit value of U.S. importers' sale price to U.S. consumers | | | | | | |
| 1970 | $0.31 | $0.46 | $0.62 | $0.66 | $0.57 | $0.60 | $1.01 |
| 1971 | .60 | .42 | .48 | .42 | .59 | .49 | 1.16 |
| 1972 | - | .46 | .54 | .40 | .61 | .52 | 1.05 |
| 1973 | - | .61 | .59 | .51 | .67 | .60 | 0.91 |
| 1974 | - | .77 | .74 | .67 | .75 | .73 | 1.09 |
| January-March | - | .71 | .35 | .40 | .78 | .49 | 1.08 |
| April-June | - | .62 | .61 | .63 | .87 | .69 | 1.08 |
| July-September | - | .76 | .74 | .65 | .67 | .71 | 1.04 |
| October-December | - | .81 | .81 | .75 | .79 | .80 | 1.14 |
| 1975: | | | | | | | |
| January-March | - | .75 | .88 | .78 | .83 | .82 | 1.08 |
| April-June | - | .92 | .95 | .70 | .79 | .85 | 1.19 |
| July-September | .71 | .88 | .75 | .77 | .84 | .80 | 1.22 |
| | Average unit value paid by U.S. importers to foreign producers | | | | | | |
| 1970 | $0.25 | $0.49 | $0.43 | $0.35 | $0.41 | $0.39 | $0.41 |
| 1971 | .25 | .43 | .40 | .38 | .45 | .39 | .43 |
| 1972 | .26 | .42 | .41 | .39 | .46 | .40 | .54 |
| 1973 | .30 | .47 | .50 | .45 | .51 | .45 | .50 |
| 1974 | .32 | .66 | .57 | .57 | .60 | .56 | .59 |
| January-March | .35 | .54 | .50 | .47 | .53 | .54 | .47 |
| April-June | .33 | .58 | .53 | .53 | .53 | .52 | .57 |
| July-September | .33 | .67 | .57 | .59 | .59 | .57 | .60 |
| October-December | .28 | .72 | .62 | .64 | .66 | .62 | .74 |
| 1975: | | | | | | | |
| January-March | .68 | .74 | .79 | .74 | 1.04 | .78 | .91 |
| April-June | .68 | .87 | .85 | .75 | .50 | .68 | .91 |
| July-September | .57 | .83 | .75 | .76 | .80 | .77 | 1.12 |

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

Note.--Data were based on responses to U.S. International Trade Commission questionnaires from U.S. importers which accounted for approximately 70 percent of stainless steel imports and 80 percent of alloy tool steel imports, by quantity, in 1974.

Table 21.--Stainless steel and tool steel: Average profit-and-loss sales margins 1/ for U.S. producers and U.S. importers, by types, 1970-74 and, by quarters, January 1974-September 1975

(Per pound)

| Item and period | Stainless steel | | | | | | Tool steel, all forms |
|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets | Plate | Sheet and strip | Rod | Bar | Total | |
| U.S. producers' sales margin | | | | | | | |
| 1970 | 2/ | $0.42 | ($0.02) | ($0.07) | $0.08 | ($0.02) | $0.05 |
| 1971 | 2/ | (.18) | .01 | (.09) | .07 | .01 | .04 |
| 1972 | 2/ | (.21) | .02 | (.02) | .07 | .02 | .05 |
| 1973 | 2/ | .06 | .03 | .01 | 3/ .01 | .05 | (.05) |
| 1974 | 2/ | .02 | .10 | .20 | .14 | .09 | .10 |
| January-March | 2/ | (.07) | .09 | .10 | .09 | .03 | (.06) |
| April-June | 2/ | - | .13 | .23 | .15 | .09 | .06 |
| July-September | 2/ | .11 | .17 | .29 | .25 | .18 | .20 |
| October-December | 2/ | .13 | .11 | .31 | .30 | .13 | .29 |
| 1975: | | | | | | | |
| January-March | 2/ | .11 | .04 | .17 | .26 | .13 | .32 |
| April-June | 2/ | .18 | .10 | .37 | .09 | .12 | .27 |
| July-September | 2/ | .19 | (.09) | .19 | .05 | (.03) | .04 |
| U.S. importers' sales margin | | | | | | | |
| 1970 | $0.06 | (.03) | .19 | .31 | .16 | .21 | .60 |
| 1971 | .35 | (.01) | .08 | .04 | .14 | .10 | .73 |
| 1972 | - | .04 | .13 | .01 | .15 | .12 | .51 |
| 1973 | - | .14 | .09 | .06 | .16 | .15 | .41 |
| 1974 | - | .11 | .17 | .10 | .15 | .17 | .50 |
| January-March | - | .17 | (.15) | (.07) | .25 | (.05) | .61 |
| April-June | - | .04 | .08 | .10 | .35 | .17 | .51 |
| July-September | - | .09 | .17 | .06 | .08 | .14 | .44 |
| October-December | - | .09 | .19 | .11 | .13 | .18 | .40 |
| 1975: | | | | | | | |
| January-March | - | .01 | .09 | .04 | (.21) | .04 | .19 |
| April-June | - | .05 | .10 | (.05) | 4/ .29 | .17 | .28 |
| July-September | .14 | .05 | - | .01 | .04 | .03 | .10 |

1/ Loss sales margins are shown in parentheses.

2/ Not available.

3/ This figure is not representative because of very high costs reported by 1 U.S. producer.

4/ This figure is not representative because of very low purchase price paid to a foreign firm by 1 U.S. importer.

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

Table 22.--Unshipped orders of U.S.-made stainless steel, by types, and tool steel, 1970-74, and, by quarters, Apr. 1, 1974-Oct. 1, 1975

(In tons)

| Date | Stainless steel | | | | | | Tool steel, all forms |
|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets | Plate | Sheet and strip | Rods | Bars | Total | |
| Jan. 1, 1970 | 3,505 | 15,385 | 103,804 | 2,782 | 12,152 | 137,628 | 8,511 |
| Jan. 1, 1971 | 2,594 | 9,456 | 52,914 | 1,495 | 13,055 | 70,514 | 5,888 |
| Jan. 1, 1972 | 2,089 | 10,397 | 48,936 | 1,692 | 8,958 | 72,072 | 5,890 |
| Jan. 1, 1973 | 3,194 | 10,629 | 86,843 | 4,445 | 24,868 | 129,979 | 6,899 |
| Jan. 1, 1974 | 8,618 | 55,092 | 270,515 | 10,441 | 40,634 | 385,300 | 24,999 |
| Apr. 1, 1974 | 11,564 | 60,032 | 265,963 | 13,677 | 44,861 | 396,097 | 25,650 |
| July 1, 1974 | 6,491 | 57,986 | 255,340 | 14,610 | 57,178 | 391,545 | 28,636 |
| Oct. 1, 1974 | 6,611 | 67,384 | 235,280 | 14,446 | 57,452 | 381,173 | 32,525 |
| Jan. 1, 1975 | 6,571 | 58,344 | 143,411 | 8,608 | 43,009 | 259,943 | 27,057 |
| Apr. 1, 1975 | 4,230 | 41,531 | 76,406 | 3,982 | 28,149 | 154,298 | 20,866 |
| July 1, 1975 | 2,804 | 28,542 | 66,840 | 2,721 | 16,468 | 117,375 | 14,979 |
| Oct. 1, 1975 | 2,559 | 22,431 | 72,162 | 2,612 | 12,518 | 112,282 | 14,135 |

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

Table 23.--Stainless steel, by types, and tool steel: Importers' unshipped orders, Jan. 1, 1970-Jan. 1, 1974, and, by quarters, Apr. 1, 1974-Oct. 1, 1975

(In tons)

| Date | Stainless steel | | | | | | Tool steel, all forms |
|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets | Plate | Sheet and strip | Rods | Bars | Total | |
| Jan. 1, 1970 | 89 | 2,252 | 13,171 | 710 | 4,833 | 21,055 | 950 |
| Jan. 1, 1971 | 5 | 1,594 | 13,645 | 1,419 | 4,932 | 21,595 | 572 |
| Jan. 1, 1972 | - | 1,788 | 5,164 | 1,226 | 4,620 | 12,798 | 1,634 |
| Jan. 1, 1973 | - | 3,037 | 3,926 | 1,593 | 5,729 | 14,285 | 4,160 |
| Jan. 1, 1974 | - | 4,110 | 7,801 | 6,669 | 6,900 | 25,480 | 5,933 |
| Apr. 1, 1974 | - | 2,116 | 6,571 | 7,460 | 7,094 | 23,241 | 6,082 |
| July 1, 1974 | - | 3,096 | 11,941 | 5,525 | 8,092 | 28,654 | 7,829 |
| Oct. 1, 1974 | - | 3,745 | 11,501 | 6,131 | 13,840 | 35,217 | 7,929 |
| Jan. 1, 1975 | - | 3,528 | 9,306 | 5,625 | 10,402 | 28,861 | 9,035 |
| Apr. 1, 1975 | - | 908 | 6,390 | 3,146 | 6,775 | 17,219 | 8,017 |
| July 1, 1975 | 55 | 955 | 8,447 | 2,268 | 6,131 | 17,856 | 7,151 |
| Oct. 1, 1975 | 90 | 2,349 | 11,127 | 2,153 | 7,480 | 23,199 | 5,590 |

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

Note.--Data were based on responses to U.S. International Trade Commission questionnaires from U.S. importers which accounted for approximately 70 percent of stainless steel imports and 80 percent of alloy tool steel imports, by quantity, in 1974.

Table 24.--Stainless steel, by types, and tool steel: Average and range of lead times for delivery from melt of new orders of U.S. producers, by quarters, Jan. 1, 1974-Oct. 1, 1975

(In weeks)

| Date | Stainless steel | | | | | | | | | | Tool steel, all forms | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets (average) | | Plate | | Sheet and strip | | Rods | | Bars | | | |
| | Range | Average | Range | Average | Range | Average | Range | Average | Range | Average | Range | Average |
| Jan. 1, 1974--- | 3-23 | 9 | 4-22 | 15 | 4-30 | 13 | 6-26 | 14 | 7-29 | 16 | 9-31 | 18 |
| Apr. 1, 1974--- | 3-27 | 11 | 6-44 | 16 | 6-34 | 14 | 6-30 | 16 | 7-39 | 20 | 11-33 | 20 |
| July 1, 1974--- | 3-25 | 11 | 6-44 | 17 | 6-32 | 14 | 6-28 | 15 | 8-39 | 21 | 11-34 | 21 |
| Oct. 1, 1974--- | 3-23 | 10 | 6-44 | 16 | 6-30 | 13 | 6-26 | 13 | 8-28 | 17 | 9-32 | 18 |
| Jan. 1, 1975--- | 3-14 | 9 | 5-12 | 9 | 4-16 | 9 | 6-12 | 8 | 7-17 | 12 | 9-22 | 15 |
| Apr. 1, 1975--- | 3-10 | 6 | 4-13 | 7 | 3-13 | 8 | 5-11 | 7 | 6-13 | 9 | 7-23 | 12 |
| July 1, 1975--- | 3-12 | 6 | 3-13 | 7 | 3-14 | 8 | 5-11 | 7 | 6-12 | 9 | 7-14 | 10 |
| Oct. 1, 1975--- | 3-08 | 5 | 3-13 | 6 | 3-14 | 7 | 5-11 | 7 | 6-12 | 8 | 7-14 | 10 |

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

Table 25.--Stainless steel, by types, and tool steel: Average and range of lead times for delivery from melt of new orders of imports, by quarters, Jan. 1, 1974-Oct. 1, 1975

(In weeks)

| Date | Stainless steel | | | | | | | | | Tool steel, all forms | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets (average) | Plate | | Sheet and strip | | Rod | | Bar | | | |
| | | Range | Average | Range | Average | Range | Average | Range | Average | Range | Average |
| Jan. 1, 1974 | 18 | 15-32 | 21 | 10-38 | 22 | 10-35 | 23 | 15-33 | 24 | 15-41 | 28 |
| Apr. 1, 1974 | 18 | 15-29 | 21 | 10-45 | 23 | 10-38 | 23 | 12-35 | 25 | 15-42 | 29 |
| July 1, 1974 | - | 14-25 | 21 | 10-39 | 22 | 10-38 | 23 | 10-42 | 24 | 15-48 | 27 |
| Oct. 1, 1974 | - | 15-25 | 21 | 10-34 | 20 | 10-36 | 23 | 10-36 | 23 | 15-45 | 28 |
| Jan. 1, 1975 | - | 15-24 | 19 | 9-37 | 19 | 10-30 | 20 | 15-35 | 22 | 15-44 | 27 |
| Apr. 1, 1975 | - | 12-24 | 17 | 9-28 | 17 | 10-30 | 18 | 15-35 | 21 | 15-38 | 26 |
| July 1, 1975 | 16 | 15-24 | 18 | 9-28 | 17 | 10-30 | 18 | 15-35 | 21 | 15-28 | 24 |
| Oct. 1, 1975 | 16 | 13-24 | 20 | 9-28 | 16 | 10-30 | 18 | 14-35 | 21 | 15-28 | 21 |

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

Note.--Data were based on responses to U.S. International Trade Commission questionnaires from U.S. importers which accounted for approximately 70 percent of stainless steel imports and 80 percent of alloy tool steel imports, by quantity, in 1974.

Table 26.--Stainless steel, by types, and tool steel: U.S. producers' inventories, Jan. 1, 1970-Jan. 1, 1974, and, by quarters, Apr. 1, 1974-Oct. 1, 1975

(In tons)

| Date | Stainless steel | | | | | | Tool steel, all forms |
|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets | Plate | Sheet and strip | Rods | Bars | Total | |
| Jan. 1, 1970 | 77,202 | 20,745 | 171,143 | 5,763 | 52,628 | 327,481 | 86,654 |
| Jan. 1, 1971 | 75,931 | 27,724 | 177,173 | 5,319 | 49,065 | 335,212 | 67,634 |
| Jan. 1, 1972 | 69,231 | 24,774 | 178,830 | 4,471 | 49,655 | 326,961 | 60,772 |
| Jan. 1, 1973 | 87,101 | 27,526 | 206,089 | 6,377 | 54,073 | 381,166 | 66,852 |
| Jan. 1, 1974 | 108,861 | 28,729 | 188,255 | 5,890 | 49,410 | 381,145 | 70,866 |
| Apr. 1, 1974 | 115,372 | 33,443 | 167,407 | 6,615 | 48,794 | 371,631 | 72,645 |
| July 1, 1974 | 110,312 | 31,092 | 158,555 | 6,893 | 52,254 | 359,106 | 75,929 |
| Oct. 1, 1974 | 109,638 | 35,642 | 160,284 | 6,937 | 52,167 | 364,668 | 73,289 |
| Jan. 1, 1975 | 118,492 | 39,716 | 165,662 | 6,741 | 56,804 | 387,415 | 76,772 |
| Apr. 1, 1975 | 92,308 | 38,590 | 153,943 | 5,559 | 53,853 | 344,253 | 75,767 |
| July 1, 1975 | 73,598 | 38,423 | 147,415 | 5,660 | 49,389 | 314,485 | 69,582 |
| Oct. 1, 1975 | 64,008 | 31,934 | 149,018 | 4,691 | 45,885 | 295,536 | 63,089 |

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

Table 27.--Stainless steel, by types, and tool steel: Importers' inventories, Jan. 1, 1970-Jan. 1, 1974, and, by quarters, Apr. 1, 1974-Oct. 1, 1975

(In tons)

| Date | Stainless steel | | | | | | Tool steel, all forms |
|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets | Plate | Sheet and strip | Rods | Bars | Total | |
| Jan. 1, 1970---- | - | 364 | 551 | - | 3,792 | 4,707 | 4,484 |
| Jan. 1, 1971---- | - | 1,366 | 5,561 | 424 | 5,165 | 12,516 | 7,427 |
| Jan. 1, 1972---- | - | 999 | 5,597 | 206 | 7,048 | 13,850 | 5,908 |
| Jan. 1, 1973---- | 200 | 494 | 3,191 | 44 | 7,596 | 11,525 | 7,722 |
| Jan. 1, 1974---- | 190 | 376 | 1,874 | 227 | 7,596 | 10,263 | 8,627 |
| Apr. 1, 1974---- | 190 | 390 | 1,284 | 334 | 7,240 | 9,438 | 6,870 |
| July 1, 1974---- | 190 | 320 | 1,679 | 160 | 6,505 | 8,854 | 9,133 |
| Oct. 1, 1974---- | 110 | 431 | 1,753 | 203 | 7,371 | 9,868 | 9,426 |
| Jan. 1, 1975---- | 110 | 1,028 | 4,859 | 649 | 10,969 | 17,615 | 10,607 |
| Apr. 1, 1975---- | - | 1,198 | 6,543 | 2,218 | 14,783 | 24,742 | 11,514 |
| July 1, 1975---- | - | 1,816 | 6,889 | 3,103 | 11,548 | 29,356 | 12,639 |
| Oct. 1, 1975---- | - | 2,130 | 7,092 | 3,403 | 16,930 | 29,555 | 12,790 |

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

Note.--Data were based on responses to U.S. International Trade Commission questionnaires from U.S. importers which accounted for approximately 70 percent of stainless steel imports and 80 percent of alloy tool steel imports, by quantity, in 1974.

Table 28.--Stainless steel and tool steel: Consumers' inventories, by types, on specified dates, Jan. 1, 1973-Oct. 1, 1975

(In tons)

| Date | Stainless steel | | | | | Tool steel, all forms |
|---|---|---|---|---|---|---|
| | Plate | Sheet and strip | Rods | Bars | Total | |
| Jan. 1, 1973 | 6,187 | 17,936 | 1,904 | 5,564 | 31,591 | 1,847 |
| Jan. 1, 1974 | 6,484 | 25,288 | 2,439 | 5,569 | 39,780 | 1,726 |
| Apr. 1, 1974 | 5,636 | 26,129 | 2,668 | 6,035 | 40,468 | 1,653 |
| July 1, 1974 | 6,891 | 25,932 | 3,672 | 6,045 | 42,540 | 2,196 |
| Oct. 1, 1974 | 8,402 | 32,231 | 3,520 | 6,754 | 50,907 | 2,138 |
| Jan. 1, 1975 | 11,131 | 39,634 | 3,806 | 7,998 | 62,569 | 1,559 |
| Apr. 1, 1975 | 11,600 | 51,847 | 3,434 | 7,013 | 73,894 | 1,463 |
| July 1, 1975 | 9,690 | 39,063 | 3,222 | 7,526 | 59,501 | 1,724 |
| Oct. 1, 1975 | 9,384 | 34,029 | 2,919 | 7,080 | 53,412 | 1,695 |

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

Note.--Data were based on responses to questionnaires of the U.S. International Trade Commission from 26 U.S. consumers which accounted for less than 50 percent of stainless steel and alloy tool steel consumption, by quantity, in 1974.

Table 29.--Total stainless steel, except pipes, tubes, and wire: U.S. exports of domestic merchandise, by principal markets, 1970-74, January-June 1974, and January-June 1975

| Market | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-June-- | |
|---|---|---|---|---|---|---|---|
| | | | | | | 1974 | 1975 |
| | Quantity (tons) | | | | | | |
| Canada | 31,189 | 19,669 | 17,471 | 34,795 | 44,664 | 20,959 | 9,916 |
| Belgium | 13,628 | 3,214 | 3,245 | 1,943 | 12,574 | 12,136 | 879 |
| Mexico | 2,341 | 1,949 | 1,840 | 4,270 | 7,250 | 3,413 | 4,519 |
| United Kingdom | 5,414 | 6,730 | 5,629 | 7,576 | 5,366 | 3,404 | 602 |
| Brazil | 1,617 | 1,353 | 2,529 | 3,696 | 5,052 | 4,066 | 2,029 |
| Australia | 918 | 453 | 624 | 1,979 | 3,425 | 1,983 | 402 |
| Taiwan | 486 | 225 | 1,117 | 1,713 | 3,291 | 2,792 | 94 |
| Italy | 3,757 | 1,492 | 1,617 | 4,051 | 2,098 | 1,380 | 661 |
| West Germany | 1,610 | 815 | 671 | 1,805 | 1,893 | 1,353 | 208 |
| Venezuela | 342 | 569 | 281 | 462 | 1,839 | 1,101 | 920 |
| Spain | 773 | 350 | 1,071 | 2,476 | 1,608 | 820 | 137 |
| All other 1/ | 15,818 | 11,307 | 20,390 | 21,536 | 33,426 | 12,680 | 6,406 |
| Total | 77,893 | 48,626 | 56,485 | 86,302 | 122,518 | 66,087 | 26,773 |
| | Value (1,000 dollars) | | | | | | |
| Canada | 25,749 | 18,632 | 17,302 | 26,019 | 44,719 | 18,371 | 13,226 |
| Belgium | 7,608 | 1,797 | 1,996 | 2,159 | 3,501 | 3,062 | 1,186 |
| Mexico | 2,964 | 2,362 | 2,049 | 5,002 | 9,957 | 4,372 | 3,272 |
| United Kingdom | 5,204 | 6,007 | 7,269 | 8,572 | 7,251 | 4,338 | 1,585 |
| Brazil | 1,435 | 1,581 | 2,265 | 3,128 | 4,562 | 3,348 | 3,153 |
| Australia | 887 | 580 | 743 | 3,387 | 5,752 | 2,818 | 1,161 |
| Taiwan | 321 | 131 | 651 | 1,110 | 1,650 | 1,378 | 92 |
| Italy | 3,660 | 1,758 | 1,583 | 3,950 | 2,995 | 1,042 | 1,214 |
| West Germany | 2,213 | 1,101 | 1,162 | 2,545 | 3,760 | 2,351 | 565 |
| Venezuela | 385 | 343 | 243 | 448 | 1,565 | 969 | 710 |
| Spain | 511 | 169 | 551 | 1,941 | 1,398 | 753 | 184 |
| All other 1/ | 15,529 | 11,020 | 10,607 | 20,237 | 24,770 | 10,716 | 14,329 |
| Total | 66,466 | 45,480 | 46,421 | 78,498 | 111,880 | 54,518 | 40,676 |

1/ Exports to all other countries have been either sporadic or small during 1970-74 and January-June 1975.

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

Table 30.--Alloy tool steel: U.S. exports of domestic merchandise, by principal markets, 1970-74, January-June 1974, and January-June 1975

| Market | 1970 | 1971 | 1972 | 1973 | 1974 | Jan.-June-- 1974 | Jan.-June-- 1975 |
|---|---|---|---|---|---|---|---|
| | Quantity (tons) | | | | | | |
| Canada | 616 | 986 | 928 | 1,815 | 1,788 | 924 | 961 |
| United Kingdom | 75 | 82 | 65 | 138 | 320 | 184 | 88 |
| Australia | 13 | 13 | 16 | 314 | 285 | 207 | 32 |
| Taiwan | 108 | 48 | - | - | 85 | 26 | 106 |
| Spain | - | - | 31 | 34 | 82 | 55 | 13 |
| Italy | 58 | 40 | 52 | 80 | 68 | 46 | 17 |
| Mexico | 22 | 64 | 19 | 55 | 51 | 21 | 215 |
| West Germany | 17 | 5 | 17 | 58 | 47 | 39 | 32 |
| Brazil | - | - | - | 34 | 18 | 6 | 19 |
| Venezuela | - | - | - | 54 | 7 | - | 42 |
| Belgium | 21 | - | - | - | 1/ | - | 1 |
| All other 2/ | 790 | 846 | 801 | 1,237 | 1,958 | 831 | 1,083 |
| Total | 1,730 | 2,084 | 1,929 | 3,819 | 4,709 | 2,339 | 2,609 |
| | Value (1,000 dollars) | | | | | | |
| Canada | 699 | 994 | 1,060 | 2,054 | 2,237 | 1,102 | 1,168 |
| United Kingdom | 141 | 164 | 151 | 147 | 391 | 216 | 257 |
| Australia | 17 | 17 | 28 | 124 | 154 | 102 | 62 |
| Taiwan | 61 | 24 | - | - | 135 | 29 | 124 |
| Spain | - | - | 45 | 39 | 99 | 63 | 24 |
| Italy | 130 | 115 | 120 | 130 | 193 | 101 | 62 |
| Mexico | 39 | 101 | 37 | 121 | 131 | 44 | 129 |
| West Germany | 25 | 22 | 25 | 149 | 152 | 116 | 207 |
| Brazil | - | - | - | 35 | 23 | 10 | 58 |
| Venezuela | - | - | - | 32 | 10 | - | 43 |
| Belgium | 61 | - | - | - | 1 | - | 3 |
| All other | 1,544 | 1,528 | 1,044 | 1,217 | 2,714 | 1,203 | 1,589 |
| Total | 2,717 | 2,965 | 2,510 | 4,048 | 6,220 | 2,986 | 3,726 |

1/ Less than 0.5 ton.

2/ Exports to all other countries have been either sporadic or small during 1970-74 and January-June 1975.

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

Table 31.--Stainless steel, by types, and tool steel: U.S. producers' exports, 1970-74 and, by quarters, January 1974-September 1975

| Period | Stainless steel | | | | | | Tool steel, all forms |
|---|---|---|---|---|---|---|---|
| | Ingots, blooms, slabs, sheet bars, and billets | Plate | Sheet and strip | Rods | Bars | Total | |
| | Quantity (tons) | | | | | | |
| 1970 | 25 | 1,256 | 38,163 | 82 | 1,657 | 41,183 | 1,661 |
| 1971 | 40 | 1,748 | 21,817 | 42 | 1,283 | 24,930 | 2,096 |
| 1972 | 40 | 1,291 | 22,894 | 123 | 935 | 25,283 | 1,671 |
| 1973 | 82 | 2,260 | 29,251 | 240 | 2,142 | 33,975 | 2,219 |
| 1974 | 660 | 2,751 | 33,534 | 180 | 2,949 | 40,074 | 2,308 |
| January-March | 30 | 486 | 10,232 | 146 | 705 | 11,599 | 726 |
| April-June | 100 | 644 | 8,429 | 23 | 1,313 | 10,509 | 502 |
| July-September | 490 | 1,102 | 6,633 | - | 457 | 8,682 | 441 |
| October-December | 40 | 519 | 8,240 | 11 | 474 | 9,284 | 639 |
| 1975: | | | | | | | |
| January-March | 220 | 572 | 5,293 | - | 319 | 6,404 | 1,133 |
| April-June | 80 | 590 | 4,912 | - | 343 | 5,925 | 562 |
| July-September | 160 | 228 | 2,904 | 12 | 188 | 3,492 | 284 |
| | Value (1,000 dollars) | | | | | | |
| 1970 | 32 | 1,656 | 26,225 | 1,255 | 2,116 | 31,284 | 3,078 |
| 1971 | 39 | 2,382 | 17,371 | 104 | 1,583 | 21,479 | 3,525 |
| 1972 | 43 | 1,673 | 18,660 | 144 | 1,305 | 21,825 | 3,116 |
| 1973 | 86 | 3,141 | 31,089 | 273 | 2,863 | 37,452 | 3,853 |
| 1974 | 342 | 3,391 | 35,000 | 192 | 3,966 | 42,891 | 5,029 |
| January-March | 120 | 754 | 10,368 | 151 | 1,049 | 12,442 | 1,550 |
| April-June | 120 | 908 | 9,119 | 29 | 1,045 | 11,221 | 1,220 |
| July-September | 40 | 793 | 6,095 | 12 | 964 | 7,904 | 914 |
| October-December | 62 | 936 | 9,418 | - | 908 | 11,324 | 1,345 |
| 1975: | | | | | | | |
| January-March | 308 | 734 | 6,889 | - | 1,317 | 9,248 | 1,845 |
| April-June | 115 | 1,055 | 6,066 | - | 1,205 | 8,441 | 1,548 |
| July-September | 259 | 332 | 3,129 | 23 | 728 | 4,471 | 833 |

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

Table 32.--Stainless steel plate (hot rolled): Range and average of lowest net selling prices received by U.S. producers and importers from sales of selected types of plate to steel service centers or distributors, 1970-73, and by quarters, January 1974-September 1975

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade 304, HRAP, 1/4" x 72" x 240" | | | | |
| 1970 | 63-68 | 66 | 35-50 | 45 | 69 |
| 1971 | 55-63 | 59 | 39-53 | 45 | 77 |
| 1972 | 56-62 | 59 | 43-50 | 47 | 79 |
| 1973 | 65-67 | 66 | 45-63 | 50 | 76 |
| 1974: | | | | | |
| January-March | 67-71 | 69 | 56-63 | 61 | 88 |
| April-June | 71-79 | 75 | 60-74 | 67 | 91 |
| July-September | 82-88 | 84 | 73-92 | 84 | 99 |
| October-December | 88-98 | 93 | 72-92 | 83 | 89 |
| 1975: | | | | | |
| January-March | 93-98 | 95 | 71-89 | 78 | 82 |
| April-June | 93-96 | 94 | 75-86 | 79 | 84 |
| July-September | 93-96 | 95 | 75-81 | 77 | 80 |
| | Grade 316L, HRAP, 1/4" x 72" x 240" | | | | |
| 1970 | 97-102 | 100 | 64-85 | 75 | 76 |
| 1971 | 84-99 | 91 | 62-74 | 68 | 75 |
| 1972 | 86-93 | 89 | 66-68 | 67 | 75 |
| 1973 | 94-97 | 96 | 70-72 | 71 | 74 |
| 1974: | | | | | |
| January-March | 94-106 | 100 | - | - | - |
| April-June | 95-111 | 106 | 88 | 88 | 83 |
| July-September | 106-118 | 114 | 120 | 120 | 105 |
| October-December | 114-124 | 120 | 101-106 | 103 | 86 |
| 1975: | | | | | |
| January-March | 118-129 | 123 | 100-101 | 101 | 82 |
| April-June | 118-127 | 122 | 100 | 100 | 82 |
| July-September | 121-127 | 123 | 100 | 100 | 81 |

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

Note.--For Grade 304, three domestic producers and eleven importers provided price data on this product. For Grade 316L, four domestic producers and nine importers provided price data on this product.

Table 33.--Stainless steel sheet (cold rolled): Lowest net selling prices received by U.S. producers and importers from sales of selected types of sheet to steel service centers or distributors, 1970-73, and by quarters, January 1974-September 1975

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade 304, 2B finish 8-14 gauge x 36" x coil | | | | |
| 1970 | 52-64 | 59 | 43-58 | 1/ 50 | 85 |
| 1971 | 48-58 | 52 | 42-53 | 46 | 89 |
| 1972 | 44-61 | 1/ 51 | 42-50 | 47 | 92 |
| 1973 | 47-54 | 49 | 55-56 | 56 | 113 |
| 1974: | | | | | |
| January-March | 47-63 | 55 | 61-78 | 72 | 132 |
| April-June | 50-72 | 60 | 65-68 | 1/ 66 | 110 |
| July-September | 47-78 | 67 | 66-86 | 73 | 110 |
| October-December | 47-81 | 1/ 71 | 70-81 | 77 | 108 |
| 1975: | | | | | |
| January-March | 53-81 | 73 | 67-74 | 70 | 96 |
| April-June | 51-81 | 68 | 68-69 | 68 | 101 |
| July-September | 54-78 | 70 | 62-71 | 67 | 97 |
| | Grade 430, 2B finish, 20 gauge x coil | | | | |
| 1970 | 43-49 | 46 | 36-39 | 38 | 81 |
| 1971 | 41-53 | 47 | 35-38 | 37 | 79 |
| 1972 | 44-51 | 47 | 36-40 | 38 | 80 |
| 1973 | 48-50 | 49 | 44-50 | 48 | 98 |
| 1974: | | | | | |
| January-March | 51-58 | 54 | 49-62 | 55 | 102 |
| April-June | 55-63 | 59 | 53-62 | 57 | 96 |
| July-September | 66-76 | 71 | 52-62 | 57 | 81 |
| October-December | 68-76 | 72 | 55-75 | 65 | 90 |
| 1975: | | | | | |
| January-March | 72-79 | 76 | 55-68 | 59 | 78 |
| April-June | 69-79 | 74 | 54-58 | 55 | 75 |
| July-September | 69-79 | 74 | 55-58 | 56 | 76 |

1/ Weighted average price is somewhat higher than the average price.

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

Note.--For Grade 304, five domestic producers and nine importers provided price data on this product. For Grade 430, three domestic producers and eight importers provided price data on this product.

Table 34.--Stainless steel strip: Lowest net selling prices received by U.S. producers and importers from sales of selected types of strip to end-use customers, 1970-73, and by quarters, January 1974-September 1975

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade 430, 2 finish, .060" x 3" to 12" x coil | | | | |
| 1970 | 43-46 | 1/ 45 | 31 | 31 | 70 |
| 1971 | 42-49 | 1/ 45 | - | - | - |
| 1972 | 1/ 40-46 | 1/ 44 | 35 | 35 | 79 |
| 1973 | 42.47 | 1/ 43 | 36 | 36 | 83 |
| 1974: | | | | | |
| January-March | 45-51 | 1/ 47 | 47 | 47 | 101 |
| April-June | 1/ 40-58 | 1/ 50 | 47 | 47 | 93 |
| July-September | 58-65 | 1/ 61 | - | - | - |
| October-December | 64-72 | 67 | - | - | - |
| 1975: | | | | | |
| January-March | 68-72 | 70 | - | - | - |
| April-June | 68-72 | 70 | - | - | - |
| July-September | 68-72 | 69 | - | - | - |

1/ Weighted average price is somewhat higher than the average price.

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

Note.--Five domestic producers and one importer provided price data on this product.

Table 35.--Stainless steel bars: Lowest net selling prices received by U.S. producers and importers from sales of selected types of bars to steel service centers or distributors, 1970-73, and by quarters, January 1974-September 1975

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade 303, cold finished, 1/2" round | | | | |
| 1970 | 66-83 | 1/ 75 | 48-68 | 1/ 55 | 72 |
| 1971 | 70-83 | 73 | 47-67 | 1/ 60 | 82 |
| 1972 | 52-73 | 1/ 65 | 49-69 | 1/ 59 | 92 |
| 1973 | 65-90 | 80 | 52-80 | 1/ 65 | 81 |
| 1974: | | | | | |
| January-March | 81-96 | 91 | 57-91 | 1/ 79 | 87 |
| April-June | 87-111 | 1/ 97 | 61-105 | 1/ 83 | 85 |
| July-September | 92-106 | 97 | 60-96 | 1/ 83 | 86 |
| October-December | 94-113 | 105 | 64-102 | 1/ 85 | 81 |
| 1975: | | | | | |
| January-March | 104-141 | 117 | 64-98 | 86 | 73 |
| April-June | 102-141 | 115 | 63-91 | 1/ 80 | 70 |
| July-September | 102-129 | 112 | 64-102 | 1/ 82 | 73 |
| | Grade 304, cold finished, 1-1/2" round | | | | |
| 1970 | 64-77 | 71 | 33-60 | 47 | 66 |
| 1971 | 61-79 | 68 | 44-68 | 54 | 81 |
| 1972 | 48-79 | 61 | 38-63 | 1/ 53 | 88 |
| 1973 | 52-70 | 63 | 49-68 | 1/ 59 | 94 |
| 1974: | | | | | |
| January-March | 55-75 | 1/ 58 | 52-74 | 66 | 113 |
| April-June | 67-91 | 1/ 75 | 56-84 | 73 | 97 |
| July-September | 75-196 | 1/ 102 | 58-88 | 75 | 73 |
| October-December | 87-196 | 1/ 108 | 58-89 | 1/ 78 | 72 |
| 1975: | | | | | |
| January-March | 92-195 | 1/ 116 | 70-82 | 77 | 66 |
| April-June | 94-206 | 1/ 118 | 69-82 | 76 | 65 |
| July-September | 89-206 | 1/ 114 | 70-85 | 1/ 76 | 67 |

1/ Weighted average price is somewhat higher than the average price.

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

Note.--For Grades 303 and 304, seven domestic producers and fourteen importers provided price data on these products.

Table 36.--Stainless steel bars: Lowest net selling prices received by U.S. producers and importers from sales of selected types of bars to steel service centers or distributors, 1970-73, and quarterly January 1974-September 1975, by type, range, average, and ratio of import price to domestic price

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade 416, cold finished, 2" round | | | | |
| 1970 | 47-52 | 48 | 30-51 | 1/ 37 | 77 |
| 1971 | 43-52 | 46 | 33-52 | 41 | 89 |
| 1972 | 36-46 | 43 | 30-54 | 39 | 92 |
| 1973 | 39-53 | 47 | 33-57 | 45 | 97 |
| 1974: | | | | | |
| January-March | 46-58 | 52 | 33-59 | 49 | 94 |
| April-June | 58-75 | 64 | 33-66 | 54 | 84 |
| July-September | 69-86 | 75 | 35-79 | 64 | 85 |
| October-December | 72-87 | 77 | 39-79 | 1/ 60 | 78 |
| 1975: | | | | | |
| January-March | 77-101 | 85 | 41-74 | 1/ 60 | 70 |
| April-June | 77-101 | 85 | 56-73 | 65 | 76 |
| July-September | 77-89 | 81 | 50-72 | 62 | 76 |

1/ Weighted average price is somewhat higher than the average price.

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

Note.--Six domestic producers and nine importers provided price data on this product.

Table 37.--Stainless steel wire rods: Lowest net prices received by U.S. producers and importers from sales of selected types of wire rods to end-use customers, 1970-73, and quarterly Jan. 1974-Sept. 1975, by type range, average, and ratio of import price to domestic price

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade 304, .217 round | | | | |
| 1970 | 58-63 | 60 | 49-51 | 50 | 82 |
| 1971 | 48-59 | 54 | 40-51 | 45 | 84 |
| 1972 | 48-55 | 51 | 39-49 | 45 | 88 |
| 1973 | 50-56 | 53 | 43-60 | 54 | 102 |
| 1974: | | | | | |
| January-March | 58-59 | 59 | 57-78 | 64 | 110 |
| April-June | 66-84 | 75 | 57-78 | 64 | 85 |
| July-September | 97 | 97 | 61-78 | 70 | 72 |
| October-December | 96 | 96 | 65-85 | 75 | 78 |
| 1975: | | | | | |
| January-March | 97 | 97 | 70-85 | 78 | 81 |
| April-June | 97 | 97 | 71-85 | 78 | 80 |
| July-September | 97 | 97 | 70-85 | 80 | 82 |

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

Note.--Two domestic producers and ten importers provided price data on this product.

Table 38.--Alloy tool steel--bars: Lowest net selling prices received by U.S. producers and importers from sales of selected types of bars to steel service centers or distributors, 1970-73, and quarterly January 1974-September 1975, by type, range, average, and ratio of import price to domestic price

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade D-2, 1-1 1/2" round, hot-rolled, annealed | | | | |
| 1970 | 95-102 | 99 | 40 | 40 | 40 |
| 1971 | 92-108 | 1/ 101 | 48- 67 | 57 | 57 |
| 1972 | 96-108 | 103 | 42- 69 | 53 | 51 |
| 1973 | 102-115 | 109 | 77 | 77 | 71 |
| 1974: | | | | | |
| January-March | 108-118 | 114 | 84- 91 | 87 | 77 |
| April-June | 111-125 | 118 | 89 | 89 | 75 |
| July-September | 122-137 | 132 | 98 | 98 | 74 |
| October-December | 126-149 | 135 | 68-101 | 79 | 59 |
| 1975: | | | | | |
| January-March | 139-164 | 151 | 68-115 | 1/ 91 | 60 |
| April-June | 139-164 | 151 | 83-124 | 1/ 96 | 63 |
| July-September | 139-164 | 151 | 83-115 | 1/ 99 | 65 |
| | Grade D-2, 8-1/8" round turned, annealed | | | | |
| 1970 | 105 | 105 | 43 | 43 | 41 |
| 1971 | 92-122 | 1/ 108 | 48- 81 | 1/ 64 | 60 |
| 1972 | 96-122 | 1/ 109 | 45- 81 | 1/ 63 | 57 |
| 1973 | 69-127 | 106 | 45- 81 | 60 | 57 |
| 1974: | | | | | |
| January-March | 115-134 | 122 | 86- 94 | 90 | 74 |
| April-June | 124-141 | 131 | 80-101 | 91 | 69 |
| July-September | 135-153 | 141 | 132 | 132 | 94 |
| October-December | 135-158 | 145 | 113-134 | 123 | 85 |
| 1975: | | | | | |
| January-March | 143-172 | 159 | 116-135 | 125 | 78 |
| April-June | 161-172 | 168 | 97-137 | 117 | 68 |
| July-September | 161-173 | 169 | 103-138 | 121 | 70 |

1/ Weighted average price is somewhat higher than the average price.

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

Note.--Three domestic producers and four importers provided price data on this product. Four domestic producers and four importers provided price data on this product.

Table 39.--Alloy tool steel--bars: Lowest net selling prices received by U.S. producers and importers from sales of selected types of bars to end-use-customers, 1970-73, and quarterly January 1974-September 1975, by type, range, average, and ratio of import price to domestic price

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade D-2, 1-1 1/2" round, hot-rolled, annealed | | | | |
| 1970 | 102-128 | 116 | 100 | 100 | 86 |
| 1971 | 68-135 | 110 | 115 | 115 | 105 |
| 1972 | 68-158 | 1/ 120 | 116 | 116 | 97 |
| 1973 | 83-159 | 1/ 127 | 106 | 106 | 83 |
| 1974: | | | | | |
| January-March | 107-161 | 1/ 134 | 135 | 135 | 101 |
| April-June | 110-171 | 1/ 140 | 115 | 115 | 82 |
| July-September | 124-177 | 1/ 150 | 101 | 101 | 67 |
| October-December | 111-252 | 1/ 169 | 143 | 143 | 84 |
| 1975: | | | | | |
| January-March | 139-195 | 168 | 167 | 167 | 99 |
| April-June | 121-195 | 164 | 154 | 154 | 94 |
| July-September | 164-195 | 1/ 174 | 167 | 167 | 96 |
| | Grade D-2, 8-1/8" round, rough turned, annealed | | | | |
| 1970 | 98-131 | 123 | 103 | 103 | 84 |
| 1971 | 73-142 | 114 | 117 | 117 | 102 |
| 1972 | 71-144 | 1/ 114 | 96 | 96 | 84 |
| 1973 | 69-144 | 1/ 126 | 69- 94 | 82 | 65 |
| 1974: | | | | | |
| January-March | 68-220 | 146 | 86-130 | 1/ 108 | 74 |
| April-June | 67-254 | 157 | 101-130 | 116 | 73 |
| July-September | 88-177 | 154 | 130-132 | 131 | 85 |
| October-December | 89-189 | 1/ 150 | 113-130 | 122 | 81 |
| 1975: | | | | | |
| January-March | 172-302 | 1/ 215 | 135-167 | 151 | 70 |
| April-June | 99-316 | 198 | 97-134 | 116 | 58 |
| July-September | 95-248 | 1/ 186 | 103-151 | 1/ 127 | 68 |
| | Grade H-12, 9" round turned, annealed | | | | |
| 1970 | 72 | 72 | - | - | - |
| 1971 | 50- 77 | 1/ 68 | - | - | - |
| 1972 | 50- 82 | 1/ 65 | - | - | - |
| 1973 | 53- 88 | 76 | 59 | 59 | 78 |
| 1974: | | | | | |
| January-March | 63- 87 | 1/ 76 | 60 | 60 | 79 |
| April-June | 64- 93 | 83 | 68 | 68 | 82 |
| July-September | 88-121 | 1/ 103 | 79 | 79 | 76 |
| October-December | 88-133 | 1/ 111 | 78 | 78 | 70 |
| 1975: | | | | | |
| January-March | 88-156 | 1/ 122 | 82 | 82 | 67 |
| April-June | 100-156 | 125 | 78 | 78 | 62 |
| July-September | 102-156 | 1/ 126 | 90 | 90 | 72 |

1/ Weighted average price is somewhat higher than the average price.

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

Note.--Grade D-2, 1-1 1/2", five domestic producers and one importer provided price data on this product. Grade D-2, 8-1/8", seven domestic producers and two importers provided price data on this product. Grade H-12, 9", five domestic producers and one importer provided price data on this product.

Table 40.--Alloy tool steel--bars: Lowest net selling prices received by U.S. producers and importers from sales of selected types of bars to steel service centers or distributors, 1970-73, and quarterly Jan. 1974-Sept. 1975, by type, range, average, and ratio of import price to domestic price

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade 0-1, 1" x 4" cold finished flat, decarb-free | | | | |
| 1970 | 75-79 | 77 | - | - | - |
| 1971 | 75-85 | 81 | 58 | 58 | 71 |
| 1972 | 83-85 | 84 | 65 | 65 | 77 |
| 1973 | 75-92 | 85 | 68-70 | 69 | 81 |
| 1974: | | | | | |
| January-March | 80-100 | 90 | 71-83 | 77 | 86 |
| April-June | 87-110 | 99 | 73 | 73 | 73 |
| July-September | 101-116 | 109 | 93-139 | 116 | 107 |
| October-December | 101-116 | 111 | 87 | 87 | 78 |
| 1975: | | | | | |
| January-March | 111-127 | 121 | 105-114 | 109 | 90 |
| April-June | 111-127 | 121 | 105-115 | 110 | 91 |
| July-September | 111-127 | 120 | 105-108 | 106 | 88 |

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

Note.--Five domestic producers and two importers provided price data on this product.

Table 41.--Alloy tool steel--high speed rods: Lowest net selling prices received by U.S. producers and importers from sales of selected types of rods to end-use customers, 1970-73, and quarterly Jan. 1974-Sept. 1975, by type, range, average, and ratio of import price to domestic price

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade M-7, .250", round x hot rolled, annealed (HRA) coils | | | | |
| 1970 | 116-144 | 127 | 91 | 91 | 72 |
| 1971 | 118-150 | 1/ 130 | 93-110 | 93-110 | 78 |
| 1972 | 118.162 | 1/ 137 | 98 | 98 | 72 |
| 1973 | 133.168 | 1/ 144 | - | - | - |
| 1974: | | | | | |
| January-March | 138-176 | 1/ 154 | - | - | - |
| April-June | 138-191 | 167 | 89 | 89 | 54 |
| July-September | 148-210 | 1/ 183 | 89-114 | 1/ 102 | 55 |
| October-December | 163.230 | 1/ 195 | - | - | - |
| 1975: | | | | | |
| January-March | 202-250 | 226 | 103 | 103 | 46 |
| April-June | 183-250 | 217 | 114 | 114 | 52 |
| July-September | 250 | 250 | 114-126 | 120 | 48 |

1/ Weighted average price is somewhat higher than the average price.

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

Note: Four domestic producers and two importers provided price data on this product.

Table 42.--Alloy tool steel--high speed bars: Lowest net selling prices received by U.S. producers and importers from sales of selected types of bars to steel service centers or distributors, 1970-73, and quarterly Jan.1974-Sept. 1975, by type, range, average, and ratio of import price to domestic price

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade M-2, 1" round x random lengths, cold finished | | | | |
| 1970 | 124-132 | 129 | 109 | 109 | 85 |
| 1971 | 129-160 | 1/ 144 | 109-112 | 1/ 122 | 85 |
| 1972 | 139-165 | 149 | 109-112 | 111 | 74 |
| 1973 | 145-174 | 158 | 108-169 | 1/ 131 | 83 |
| 1974: | | | | | |
| January-March | 154-188 | 170 | 156 | 156 | 92 |
| April-June | 163-207 | 181 | 176 | 176 | 97 |
| July-September | 180-236 | 208 | 127-188 | 1/ 158 | 76 |
| October-December | 206-236 | 220 | - | - | - |
| 1975: | | | | | |
| January-March | 194-260 | 1/ 231 | - | - | - |
| April-June | 195-260 | 1/ 231 | - | - | - |
| July-September | 195-260 | 1/ 231 | 217 | 217 | 94 |

1/ Weighted average price is somewhat higher than the average price.

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

Note: Five domestic producers and three importers provided price data on this product.

Table 43.--Alloy tool steel--high speed bars: Lowest net selling prices received by U.S. producers and importers from sales of selected types of bars to end-use customers, 1970-73, and quarterly January 1974-September 1975, by type, range, average, and ratio of import price to domestic price

(Prices in cents per pound)

| Period | Domestic | | Imported | | Ratio (percent) of average import price to average domestic price |
|---|---|---|---|---|---|
| | Range | Arithmetic average | Range | Arithmetic average | |
| | Grade M-2, 1" round x random lengths, cold finished | | | | |
| 1970 | 127-165 | 143 | - | - | - |
| 1971 | 130-160 | 142 | 114-129 | 121 | 86 |
| 1972 | 129-188 | 1/ 150 | 122-133 | 128 | 85 |
| 1973 | 131-180 | 1/ 149 | 125-141 | 133 | 89 |
| 1974: | | | | | |
| January-March | 134-177 | 1/ 154 | 130-158 | 1/ 144 | 94 |
| April-June | 138-214 | 1/ 173 | 130-151 | 141 | 81 |
| July-September | 146-233 | 1/ 193 | 130-179 | 1/ 155 | 80 |
| October-December | 145-269 | 1/ 212 | 132-158 | 1/ 145 | 68 |
| 1975: | | | | | |
| January-March | 170-284 | 220 | 133-212 | 1/ 172 | 78 |
| April-June | 170-287 | 231 | 133-191 | 1/ 162 | 70 |
| July-September | 195-294 | 1/ 237 | 212 | - | - |
| | Grade M-7, 1" round x cold finished | | | | |
| 1970 | 121-147 | 136 | - | - | - |
| 1971 | 123-134 | 129 | - | - | - |
| 1972 | 129-145 | 137 | 125 | 125 | 91 |
| 1973 | 128-151 | 139 | - | - | - |
| 1974: | | | | | |
| January-March | 129-160 | 1/ 147 | - | - | - |
| April-June | 131-171 | 150 | - | - | - |
| July-September | 134-205 | 1/ 170 | - | - | - |
| October-December | 146-209 | 181 | 200 | 200 | 110 |
| 1975: | | | | | |
| January-March | 162-209 | 184 | 200 | 200 | 109 |
| April-June | 162-303 | 208 | - | - | - |
| July-September | 162-209 | 186 | 179 | 179 | 96 |

1/ Weighted average price is somewhat higher than the average price.

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

Note.--Grade M-2, 1", nine domestic producers and two importers provided price data on this product. Grade M-7, 1", six domestic producers and two importers provided price data on this product.

Table 44.--Profit-and-loss experience of 17 U.S. producers of stainless steel and/or alloy steel on their overall establishment operations, 1970-74, January-September 1974, and January-September 1975

| Item | 1970 | 1971 | 1972 | 1973 | 1974 | January-September-- | |
|---|---|---|---|---|---|---|---|
| | | | | | | 1974 | 1975 |
| Net sales----------1,000 dollars-- | 1,069,537 | 1,088,582 | 1,323,724 | 1,812,915 | 2,453,983 | 1,844,695 | 1,240,258 |
| Cost of goods sold-------do------- | 928,678 | 966,920 | 1,139,707 | 1,535,100 | 2,032,893 | 1,503,523 | 1,094,493 |
| Gross profit------------do------- | 140,859 | 121,662 | 184,017 | 277,815 | 421,090 | 341,172 | 145,795 |
| General, selling, and administrative expense--1,000 dollars-- | 103,843 | 103,250 | 105,102 | 122,061 | 147,676 | 109,247 | 105,116 |
| Net operating profit 1,000 dollars-- | 37,016 | 18,412 | 78,915 | 155,754 | 273,414 | 231,925 | 40,679 |
| Other expense net--1,000 dollars-- | 7,654 | 5,849 | 10,163 | 12,443 | 13,990 | 11,276 | 9,280 |
| Net profit before taxes 1,000 dollars-- | 29,362 | 12,563 | 68,752 | 143,311 | 259,424 | 220,649 | 31,399 |
| Ratio of net operating profit to net sales----------percent-- | 3.5 | 1.7 | 6.0 | 8.6 | 11.1 | 12.6 | 3.3 |

Source: Compiled from data submitted to the U.S. International Trade Commission by the domestic producers.

Table 45.--Profit-and-loss experience of 16 U.S. producers of stainless steel and alloy tool steel on their production of stainless steel plate, sheet and strip, rods, and bars and alloy tool steel, 1970-74, January-September 1974, and January-September 1975

| Year and item | Net sales | Cost of goods sold | Gross profit or (loss) | General, selling, and administrative expense | Net operating profit or (loss) | Ratio of net operating profit or (loss) to net sales |
|---|---|---|---|---|---|---|
| | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | Percent |
| 1970 | | | | | | |
| Stainless steel and alloy tool steel, total | 760,204 | 663,557 | 96,647 | 80,801 | 15,846 | 2.1 |
| Stainless steel, total | 624,260 | 545,160 | 79,100 | 61,887 | 17,213 | 2.8 |
| Plate | 34,541 | 29,110 | 5,431 | 2,278 | 3,153 | 9.1 |
| Sheet and strip | 423,930 | 371,668 | 52,262 | 33,101 | 19,161 | 4.5 |
| Rods | 12,375 | 11,359 | 1,016 | 3,005 | (1,989) | (16.1) |
| Bars | 153,414 | 133,023 | 20,391 | 23,503 | (3,112) | (2.0) |
| Alloy tool steel | 135,944 | 118,397 | 17,547 | 18,914 | (1,367) | (1.0) |
| Flat-rolled products | 458,471 | 400,778 | 57,693 | 35,379 | 22,314 | 4.9 |
| Stainless steel bars and rods and alloy tool steel | 301,733 | 262,779 | 38,954 | 45,422 | (6,468) | (2.1) |
| 1971 | | | | | | |
| Stainless steel and alloy tool steel, total | 809,669 | 726,869 | 82,800 | 78,209 | 4,591 | 0.6 |
| Stainless steel, total | 682,238 | 614,521 | 67,717 | 60,627 | 7,090 | 1.0 |
| Plate | 39,526 | 35,805 | 3,721 | 1,996 | 1,725 | 4.4 |
| Sheet and strip | 476,100 | 429,538 | 46,562 | 33,918 | 12,644 | 2.7 |
| Rods | 13,445 | 13,946 | (501) | 2,292 | (2,793) | (20.9) |
| Bars | 153,167 | 135,232 | 17,935 | 22,421 | (4,486) | (2.9) |
| Alloy tool steel | 127,431 | 112,348 | 15,083 | 17,582 | (2,499) | (2.0) |
| Flat-rolled products | 515,626 | 465,343 | 50,283 | 35,914 | 14,369 | 2.8 |
| Stainless steel bars and rods and alloy tool steel | 294,043 | 261,526 | 32,517 | 42,295 | (9,778) | (3.3) |
| 1972 | | | | | | |
| Stainless steel and alloy tool steel, total | 954,531 | 837,176 | 117,355 | 78,484 | 38,871 | 4.1 |
| Stainless steel, total | 799,565 | 707,315 | 92,250 | 60,186 | 32,064 | 4.0 |
| Plate | 45,418 | 42,198 | 3,220 | 2,059 | 1,161 | 2.6 |
| Sheet and strip | 550,150 | 491,029 | 59,121 | 32,184 | 26,937 | 4.9 |
| Rods | 18,012 | 16,652 | 1,360 | 2,941 | (1,581) | (8.8) |
| Bars | 185,985 | 157,436 | 28,549 | 23,002 | 5,547 | 3.0 |
| Alloy tool steel | 154,966 | 129,861 | 25,105 | 18,298 | 6,807 | 4.4 |
| Flat-rolled products | 595,568 | 533,227 | 62,341 | 34,243 | 28,098 | 4.7 |
| Stainless steel bars and rods and alloy tool steel | 358,963 | 303,949 | 55,014 | 44,241 | 10,773 | 3.0 |

Table 45.--Profit-and-loss experience of 16 U.S. producers of stainless steel and alloy tool steel on their production of stainless steel plate, sheet and strip, rods, and bars and alloy tool steel, 1970-74, January-September 1974, and January-September 1975--Continued

| Year and item | Net sales | Cost of goods sold | Gross profit or (loss) | General, selling, and administrative expense | Net operating profit or (loss) | Ratio of net operating profit or (loss) to net sales |
|---|---|---|---|---|---|---|
| | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | Percent |
| 1973 | | | | | | |
| Stainless steel and alloy tool steel, total | 1,335,296 | 1,116,083 | 219,213 | 91,849 | 127,364 | 9.5 |
| Stainless steel, total | 1,135,085 | 955,419 | 179,666 | 71,079 | 108,587 | 9.6 |
| Plate | 71,747 | 60,344 | 11,403 | 2,801 | 8,602 | 12.0 |
| Sheet and strip | 779,775 | 657,316 | 122,459 | 36,961 | 85,498 | 11.0 |
| Rods | 29,118 | 26,693 | 2,425 | 3,831 | (1,406) | (4.8) |
| Bars | 254,445 | 211,066 | 43,379 | 27,486 | 15,893 | 6.2 |
| Alloy tool steel | 200,211 | 160,664 | 39,547 | 20,770 | 18,777 | 9.4 |
| Flat-rolled products | 851,522 | 717,660 | 133,862 | 39,762 | 94,100 | 11.1 |
| Stainless steel bars and rods and alloy tool steel | 483,774 | 398,423 | 85,351 | 52,087 | 33,264 | 6.9 |
| 1974 | | | | | | |
| Stainless steel and alloy tool steel, total | 1,876,009 | 1,516,785 | 359,224 | 114,960 | 224,264 | 13.0 |
| Stainless steel, total | 1,632,873 | 1,322,894 | 309,979 | 91,777 | 218,202 | 13.4 |
| Plate | 150,803 | 119,429 | 31,374 | 4,474 | 26,900 | 17.8 |
| Sheet and strip | 1,094,063 | 893,413 | 200,650 | 50,158 | 150,492 | 13.8 |
| Rods | 43,994 | 34,292 | 9,702 | 4,733 | 4,969 | 11.3 |
| Bars | 344,013 | 275,760 | 68,253 | 32,412 | 35,841 | 10.4 |
| Alloy tool steel | 243,136 | 193,891 | 49,245 | 23,183 | 26,062 | 10.7 |
| Flat-rolled products | 1,244,866 | 1,012,842 | 232,024 | 54,632 | 177,392 | 14.2 |
| Stainless steel bars and rods and alloy tool steel | 631,143 | 503,943 | 127,200 | 60,328 | 66,872 | 10.6 |

Table 45.--Profit-and-loss experience of 16 U.S. producers of stainless steel and alloy tool steel on their production of stainless steel plate, sheet and strip, rods, and bars and alloy tool steel, 1970-74, January-September 1974, and January-September 1975--Continued

| Year and item | Net sales | Cost of goods sold | Gross profit or (loss) | General, selling, and administrative expense | Net operating profit or (loss) | Ratio of net operating profit or (loss) to net sales |
|---|---|---|---|---|---|---|
| | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | 1,000 dollars | Percent |
| January-September 1974 | | | | | | |
| Stainless steel and alloy tool steel, total | 1,400,880 | 1,118,938 | 281,942 | 82,980 | 198,962 | 14.2 |
| Stainless steel, total | 1,218,329 | 971,271 | 247,058 | 65,592 | 181,466 | 14.9 |
| Plate | 106,676 | 85,212 | 21,464 | 3,108 | 18,356 | 17.2 |
| Sheet and strip | 830,487 | 660,245 | 170,242 | 36,326 | 133,916 | 16.1 |
| Rods | 31,636 | 25,356 | 6,280 | 3,319 | 2,961 | 9.4 |
| Bars | 249,530 | 200,458 | 49,072 | 22,839 | 26,233 | 10.5 |
| Alloy tool steel | 182,551 | 147,667 | 34,884 | 17,388 | 17,496 | 9.6 |
| Flat-rolled products | 937,163 | 745,457 | 191,706 | 39,434 | 152,272 | 16.2 |
| Stainless steel bars and rods and alloy tool steel | 463,717 | 373,481 | 90,236 | 43,546 | 46,690 | 10.1 |
| January-September 1975 | | | | | | |
| Stainless steel and alloy tool steel, total | 901,381 | 797,079 | 104,302 | 79,918 | 24,384 | 2.7 |
| Stainless steel, total | 760,112 | 682,816 | 77,296 | 64,367 | 12,929 | 1.7 |
| Plate | 102,066 | 82,920 | 19,146 | 3,594 | 15,552 | 15.2 |
| Sheet and strip | 444,083 | 418,069 | 26,014 | 33,380 | (7,366) | (1.7) |
| Rods | 15,274 | 13,016 | 2,258 | 2,222 | 36 | 0.2 |
| Bars | 198,689 | 168,811 | 29,878 | 25,171 | 4,707 | 2.4 |
| Alloy tool steel | 141,269 | 114,263 | 27,006 | 15,551 | 11,455 | 8.1 |
| Flat-rolled products | 546,149 | 500,989 | 45,160 | 36,974 | 8,186 | 1.5 |
| Stainless steel bars and rods and alloy tool steel | 355,232 | 296,090 | 59,142 | 42,944 | 16,198 | 4.6 |

Source: Compiled from data submitted to the U.S. International Trade Commission by the domestic producers.

Table 46.--Capital expenditures reported by 15 U.S. producers of stainless steel and/or alloy tool steel for the facilities used in the manufacture, warehousing, and marketing, of stainless steel and alloy tool steel, 1971-74 and budgeted figures for 1975 and 1976

(In thousands of dollars)

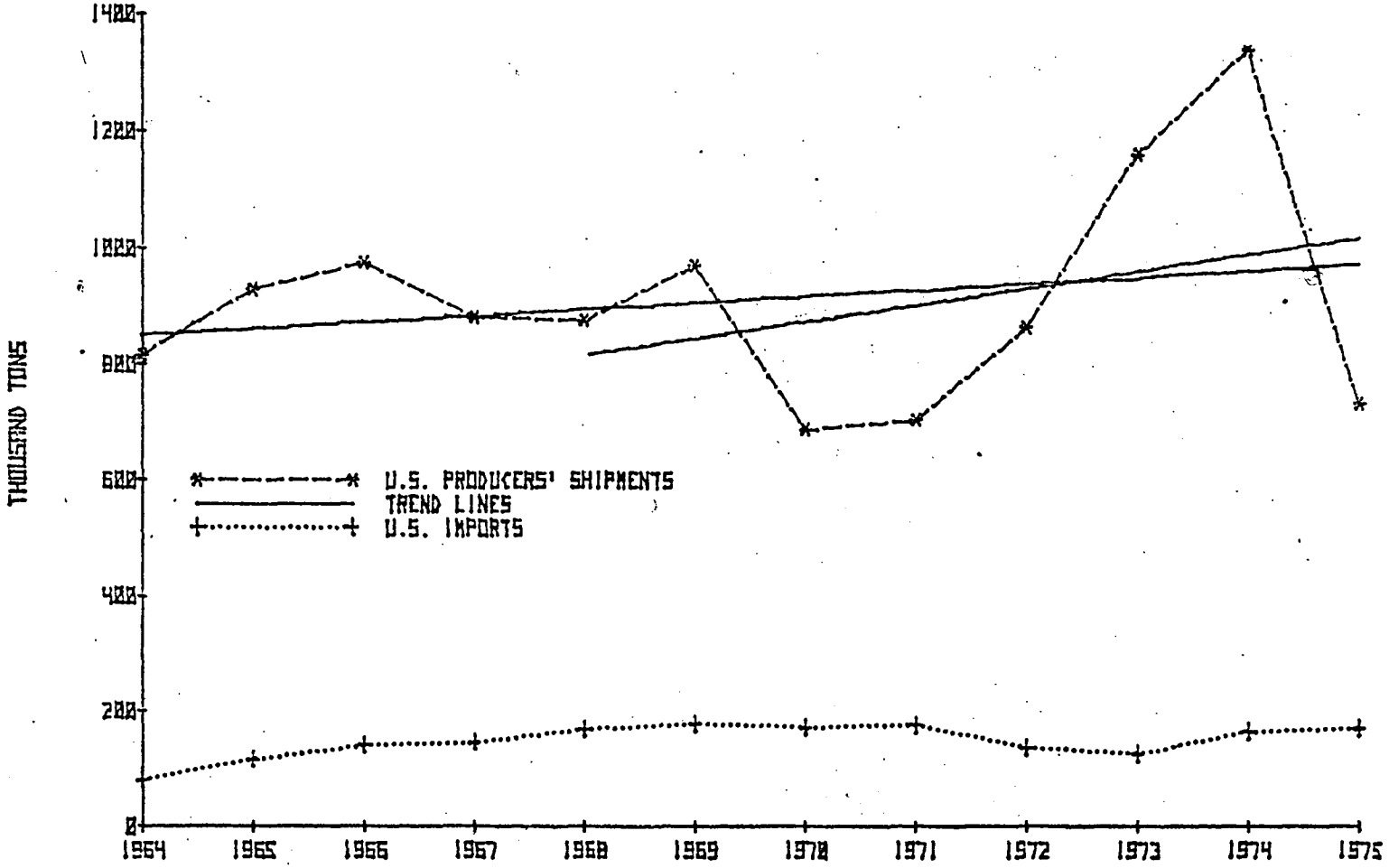
| Item | 1971 | 1972 | 1973 | 1974 | Budgeted for 1975 | Budgeted for 1976 |
|---|---|---|---|---|---|---|
| Land and land improvements | 878 | 802 | 544 | 463 | 650 | 598 |
| Building and leasehold improvements | 3,924 | 2,359 | 3,310 | 7,227 | 4,206 | 5,523 |
| Machinery, equipment, and fixtures | 36,522 | 42,501 | 31,619 | 59,522 | 66,284 | 95,384 |
| Environmental expenditures | 9,665 | 11,685 | 7,654 | 13,854 | 9,713 | 12,347 |
| Total | 50,989 | 57,347 | 43,127 | 81,066 | 80,853 | 113,852 |

Source: Compiled from data submitted to the U.S. International Trade Commission by the domestic producers.

# APPENDIX B

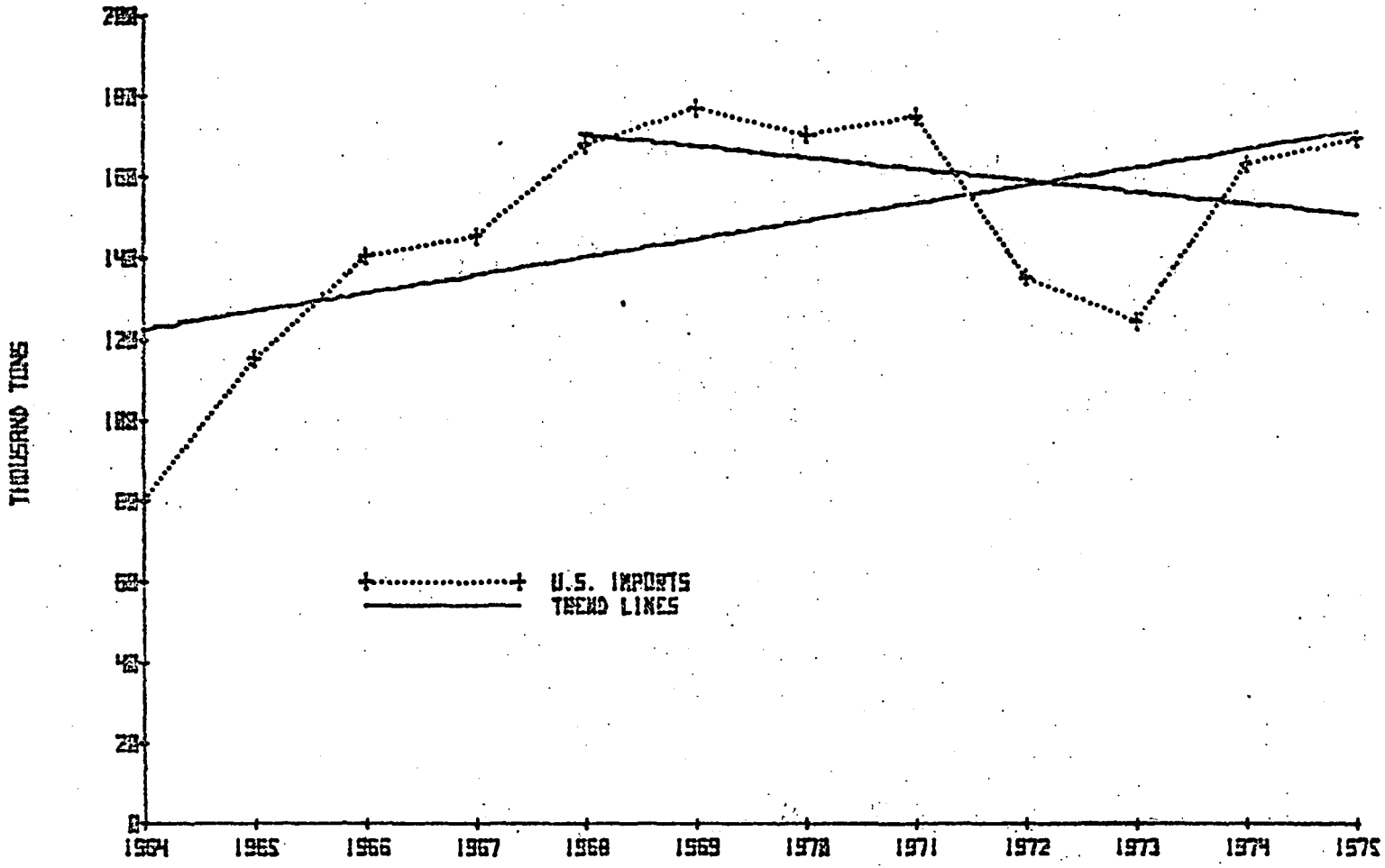
# FIGURES

FIGURE 1.--STAINLESS STEEL AND ALLOY TOOL STEEL, TOTAL




Source: Shipments 1964-69, A.I.S.I., 1970-January-September 1975, U.S. International Trade Commission; imports 1964-January-September 1975, U.S. Department of Commerce.

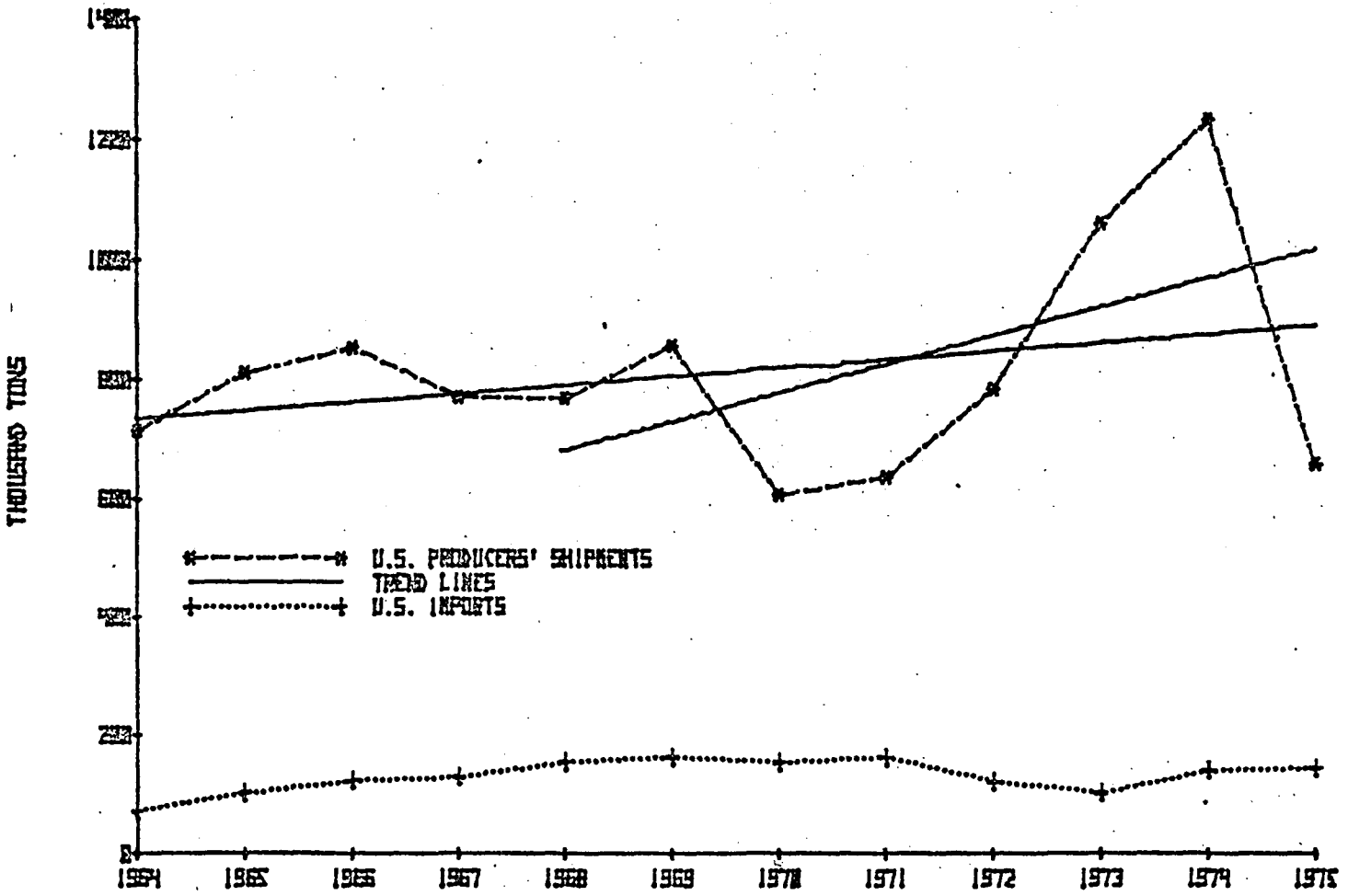
FIGURE 2.--U.S. IMPORTS OF STAINLESS STEEL AND ALLOY TOOL STEEL, TOTAL




NOTE: 1975 IMPORTS PROJECTED ON THE BASIS OF JAN.-SEPT. DATA.

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

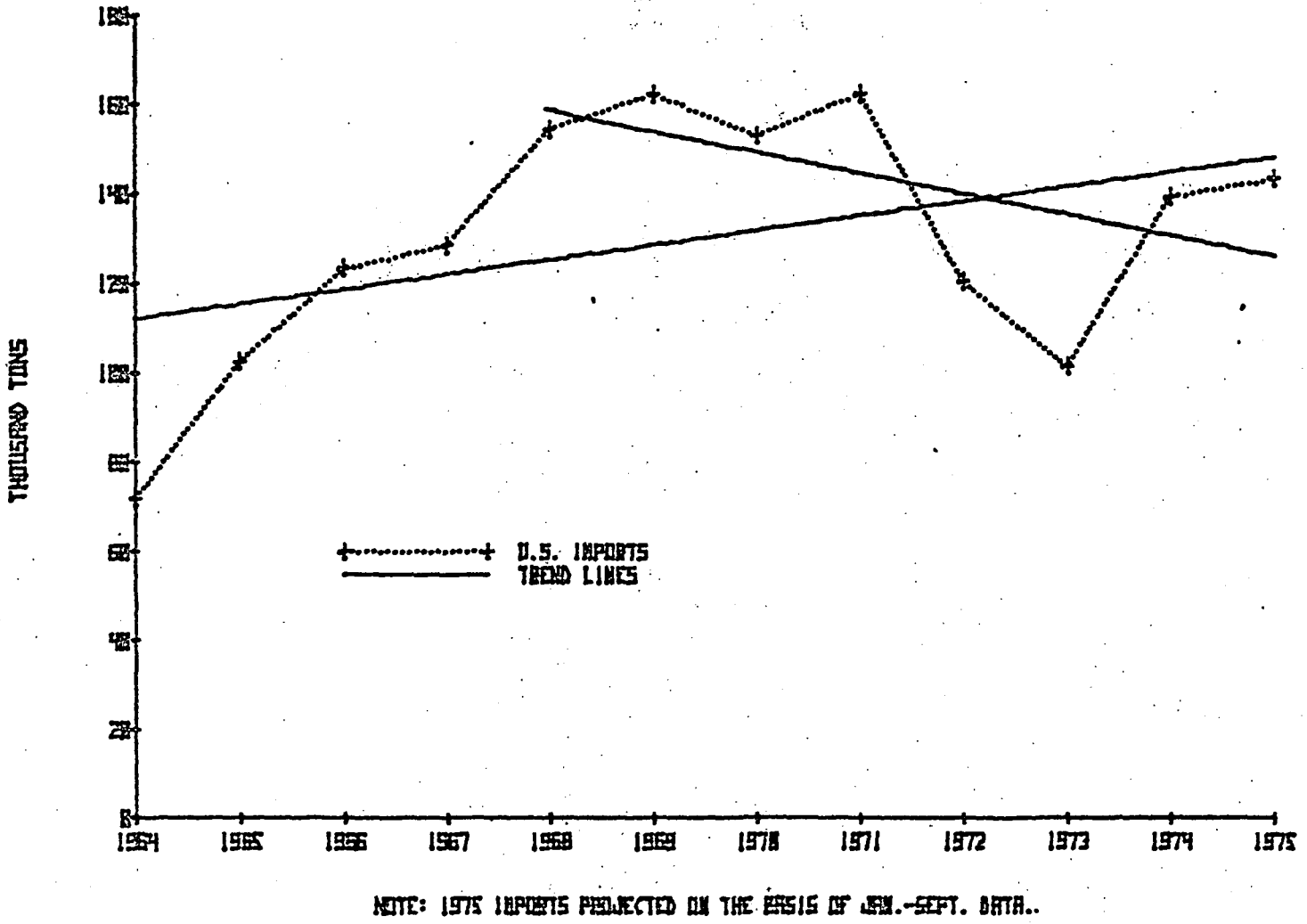
FIGURE 3.--STAINLESS STEEL, TOTAL




NOTE: 1975 DATA PROJECTED ON THE BASIS OF JAN.-SEPT. STATISTICS.

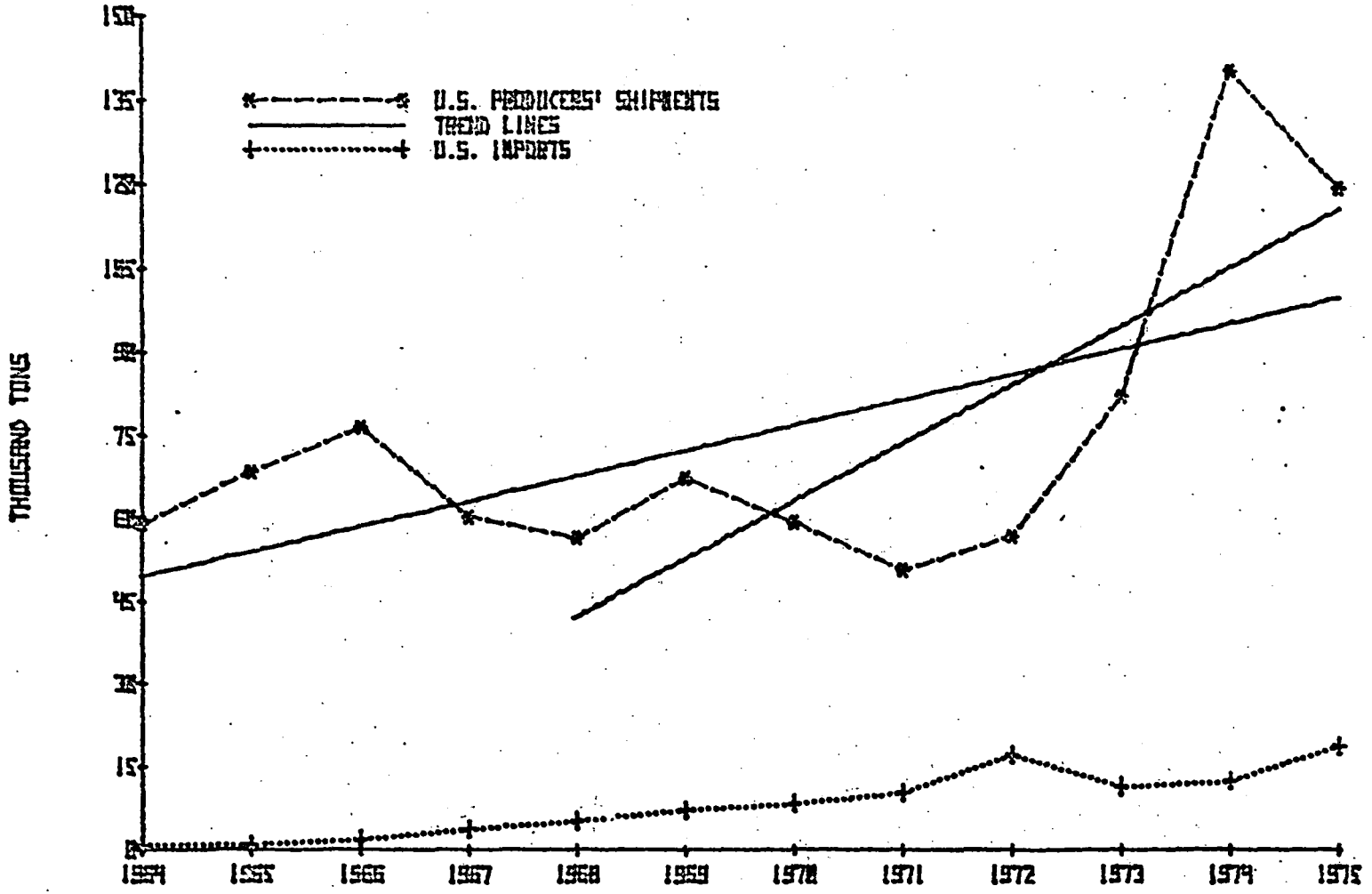
Source: Shipments 1964-69, A.I.S.I.; 1970-January-September 1975, U.S. International Trade Commission; imports 1964-January-September 1975, U.S. Department of Commerce.

FIGURE 4.--U.S. IMPORTS OF STAINLESS STEEL, TOTAL




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

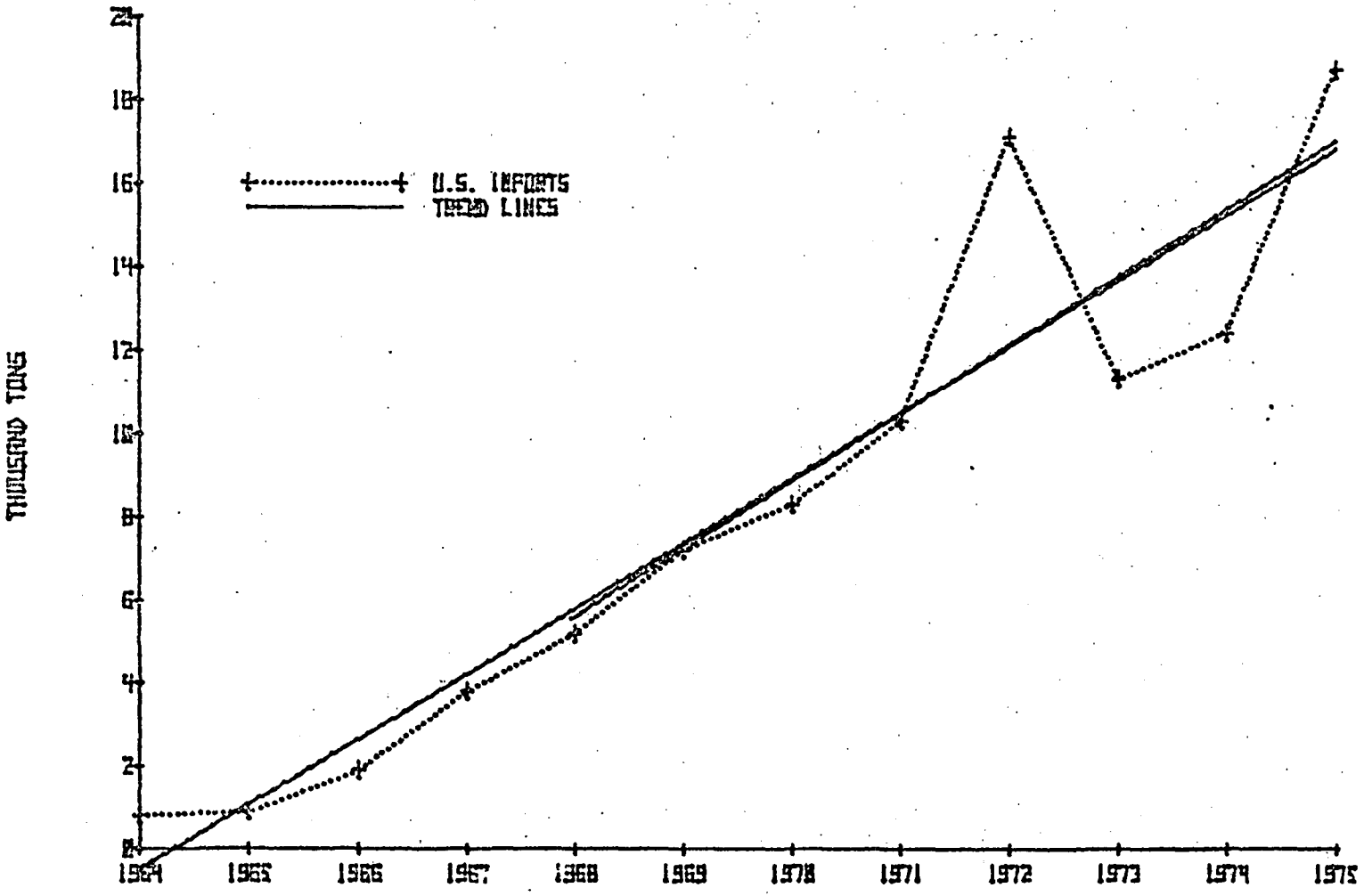
FIGURE 5.--PLATE




NOTE: 1975 DATA PROJECTED ON THE BASIS OF JAN.-SEPT. STATISTICS.

Source: Shipments 1964-69, A.I.S.I.; 1970-January-September 1975, U.S. International Trade Commission; imports 1964-January-September 1975, U.S. Department of Commerce.

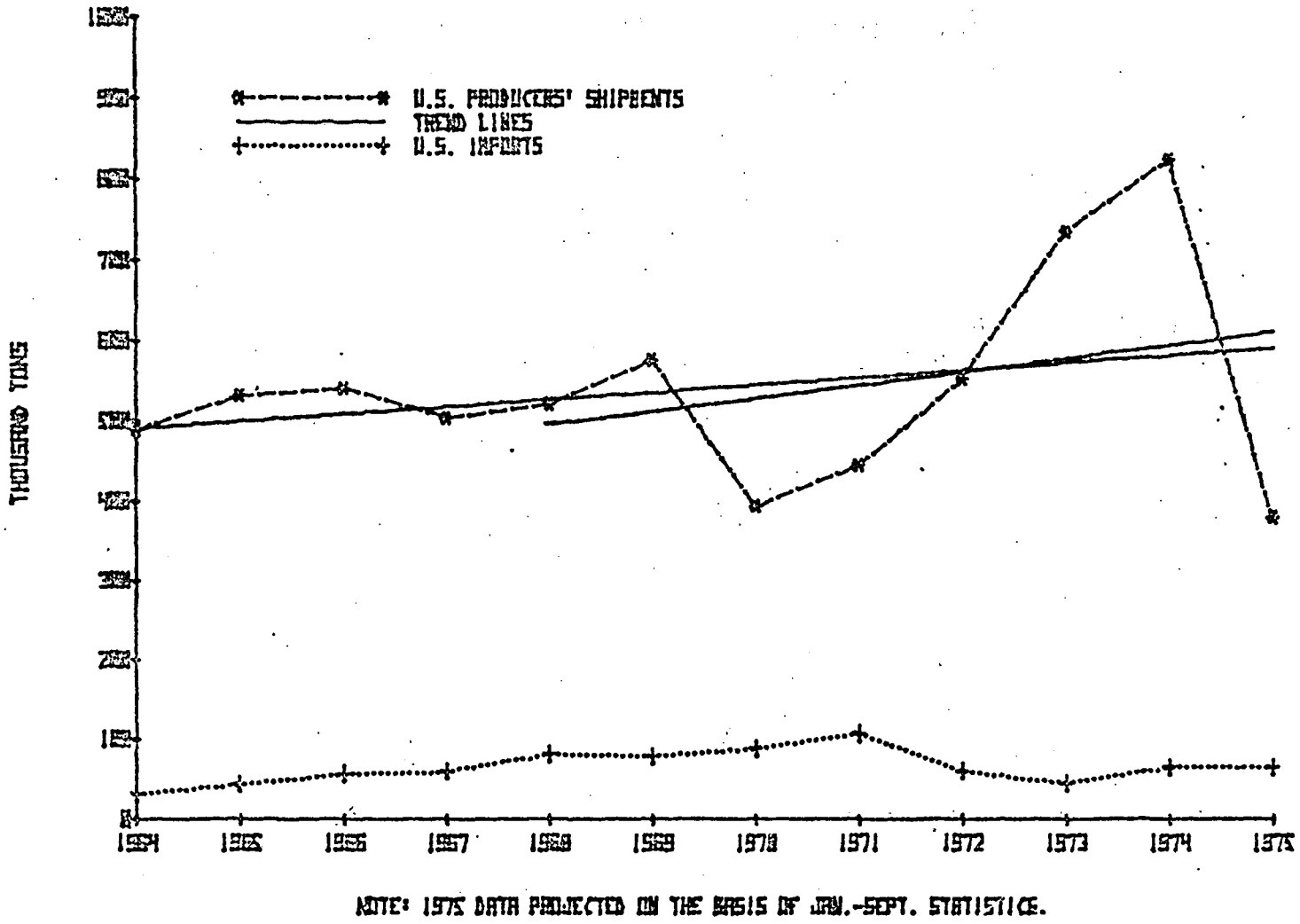
FIGURE 6.--U.S. IMPORTS OF PLATE




NOTE: 1975 IMPORTS PROJECTED ON THE BASIS OF JAN.-SEPT. DATA.

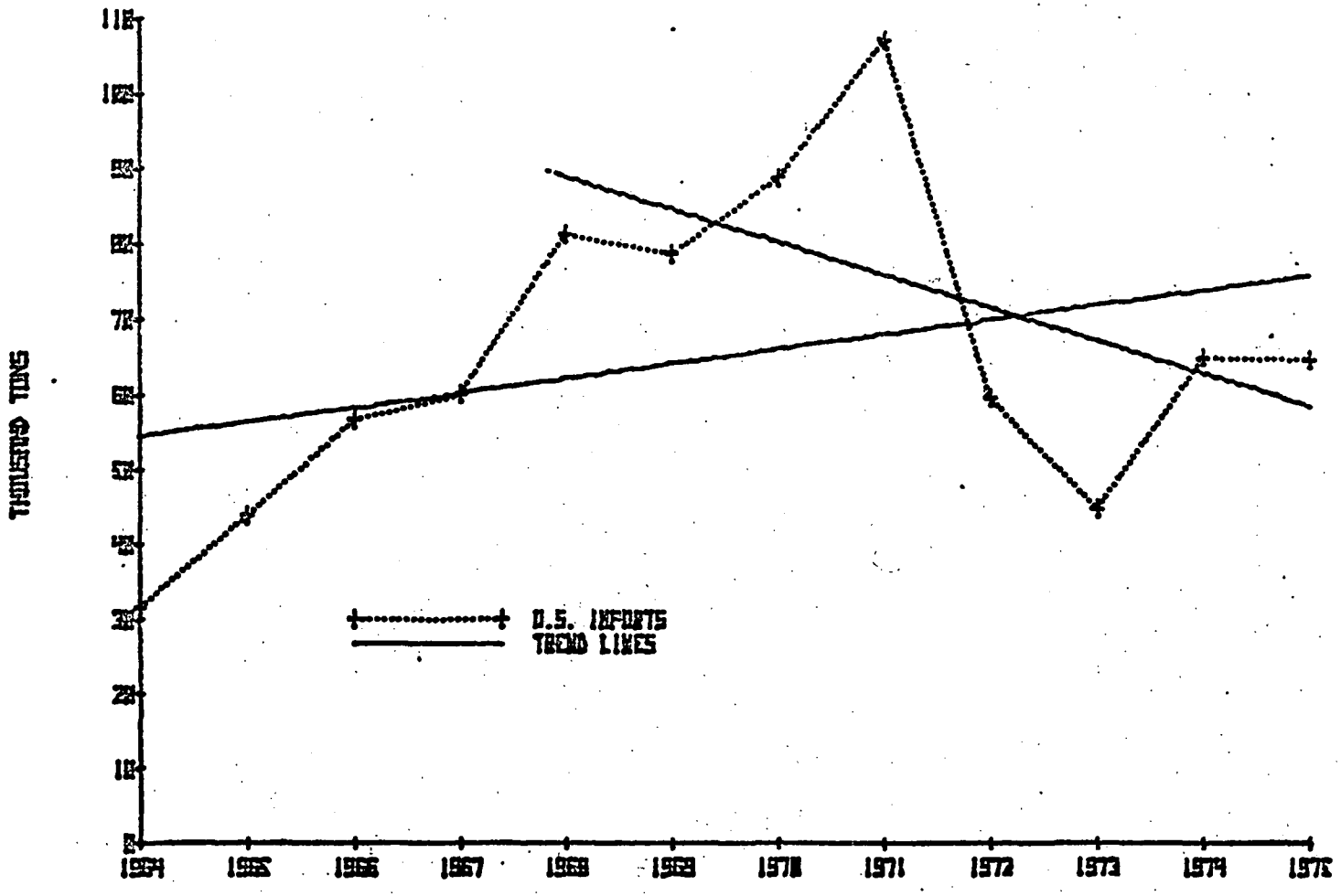
Source: Compiled from official statistics of the U.S. Department of Commerce.

FIGURE 7.--SHEET AND STRIP




Source: Shipments 1964-69, A.I.S.I.; 1970-January-September 1975, U.S. International Trade Commission; imports 1964-January-September 1975, U.S. Department of Commerce.

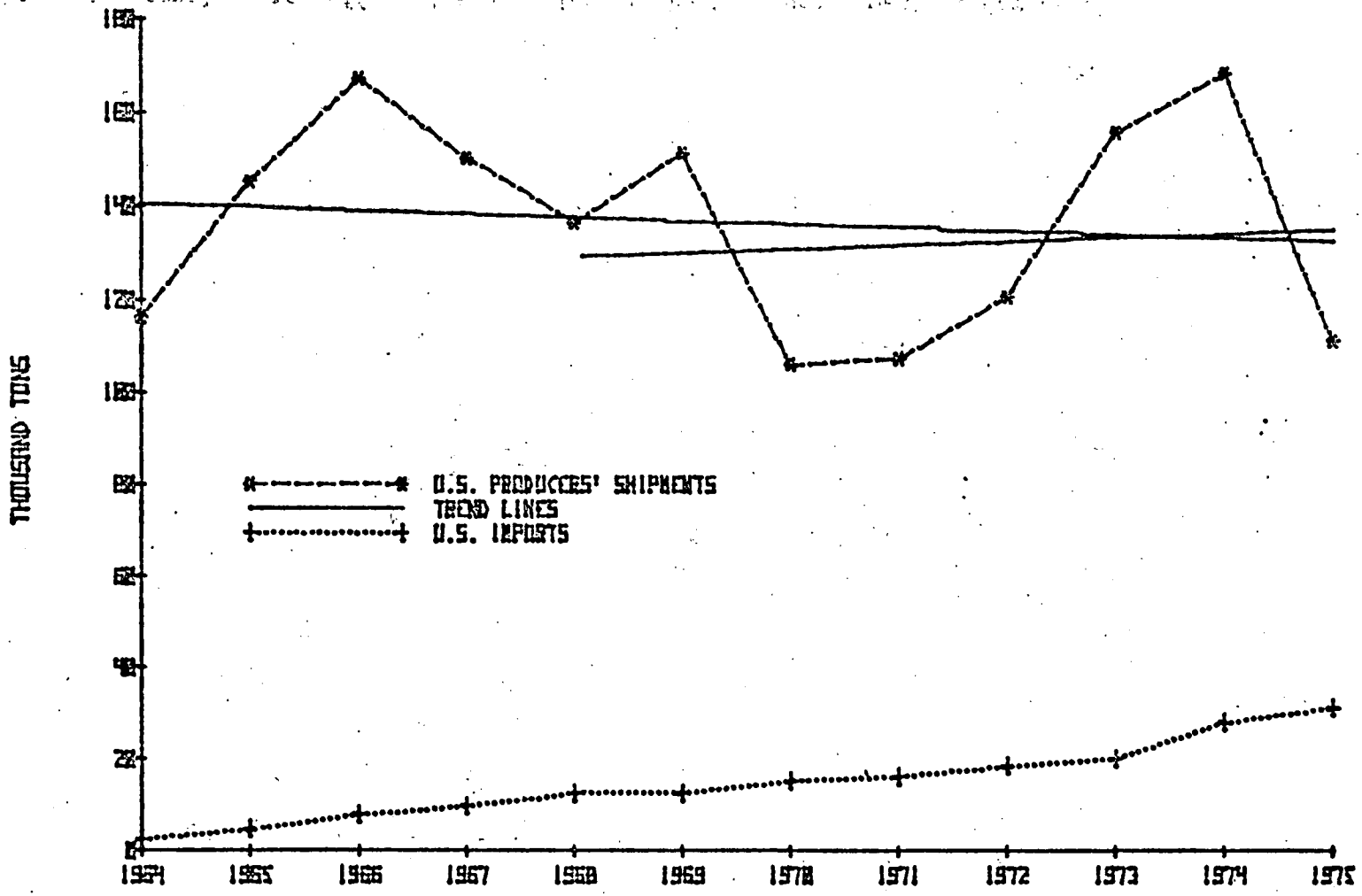
FIGURE 8.--U.S. IMPORTS OF SHEET AND STRIP




NOTE: 1975 IMPORTS PROJECTED ON THE BASIS OF JAN.-SEPT. DATA.

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

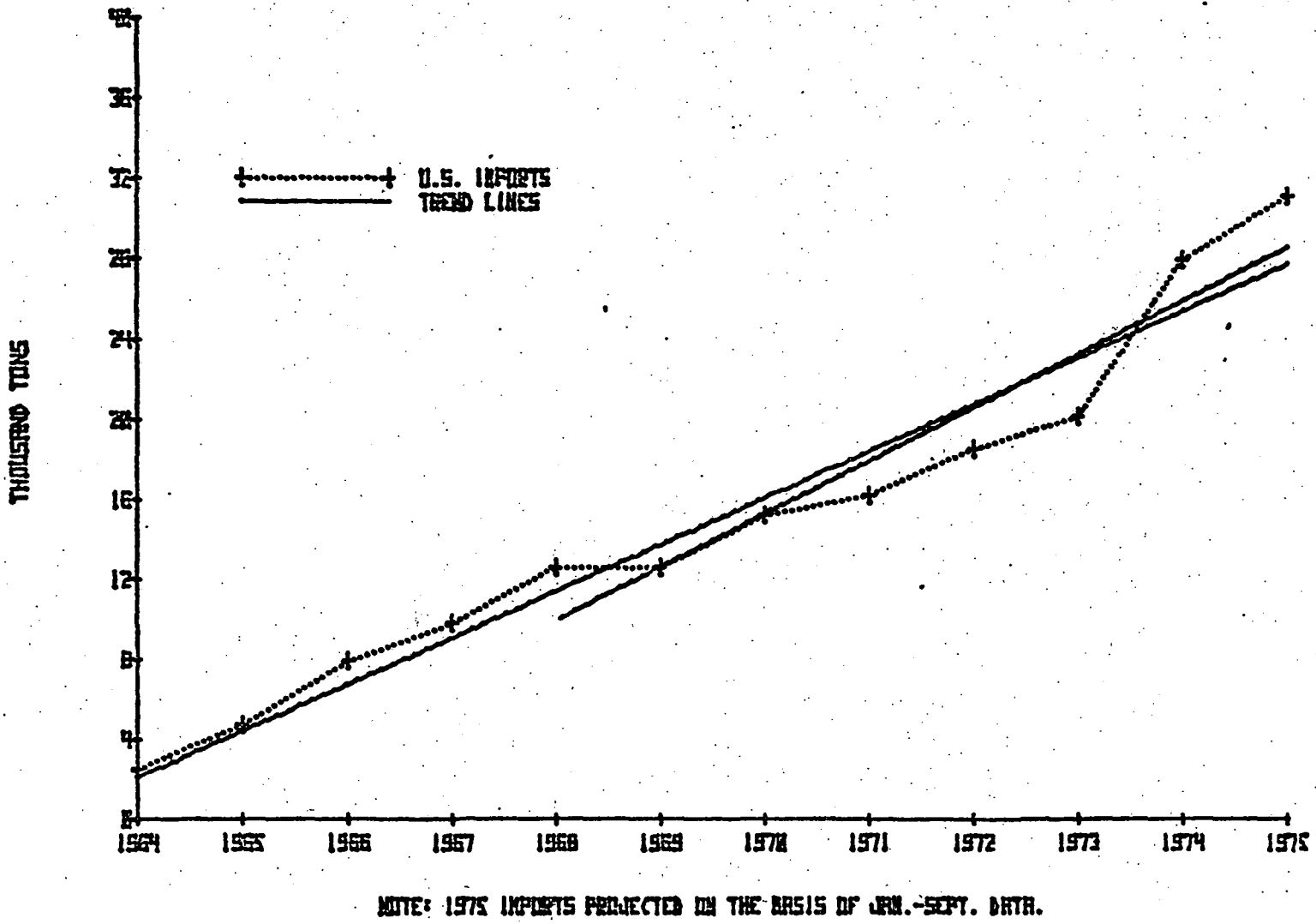
FIGURE 9.--BARS




NOTE: 1975 DATA PROJECTED ON THE BASIS OF JAN.-SEPT. STATISTICS.

Source: Shipments 1964-69, A.I.S.I.; 1970-January-September 1975, U.S. International Trade Commission; imports 1964-January-September 1975, U.S. Department of Commerce.

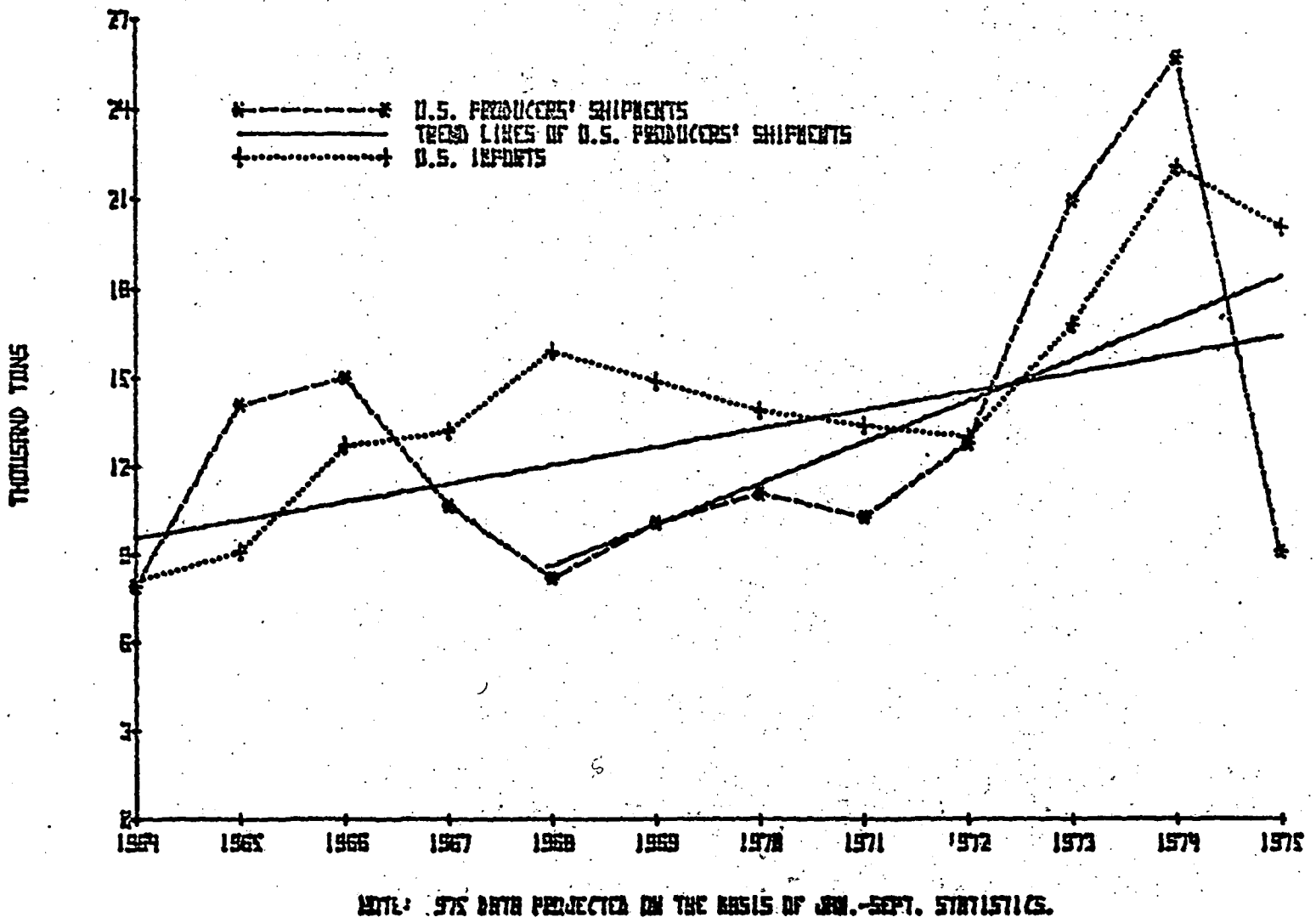
FIGURE 10.--U.S. IMPORTS OF BARS




NOTE: 1975 IMPORTS PROJECTED ON THE BASIS OF JAN.-SEPT. DATA.

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

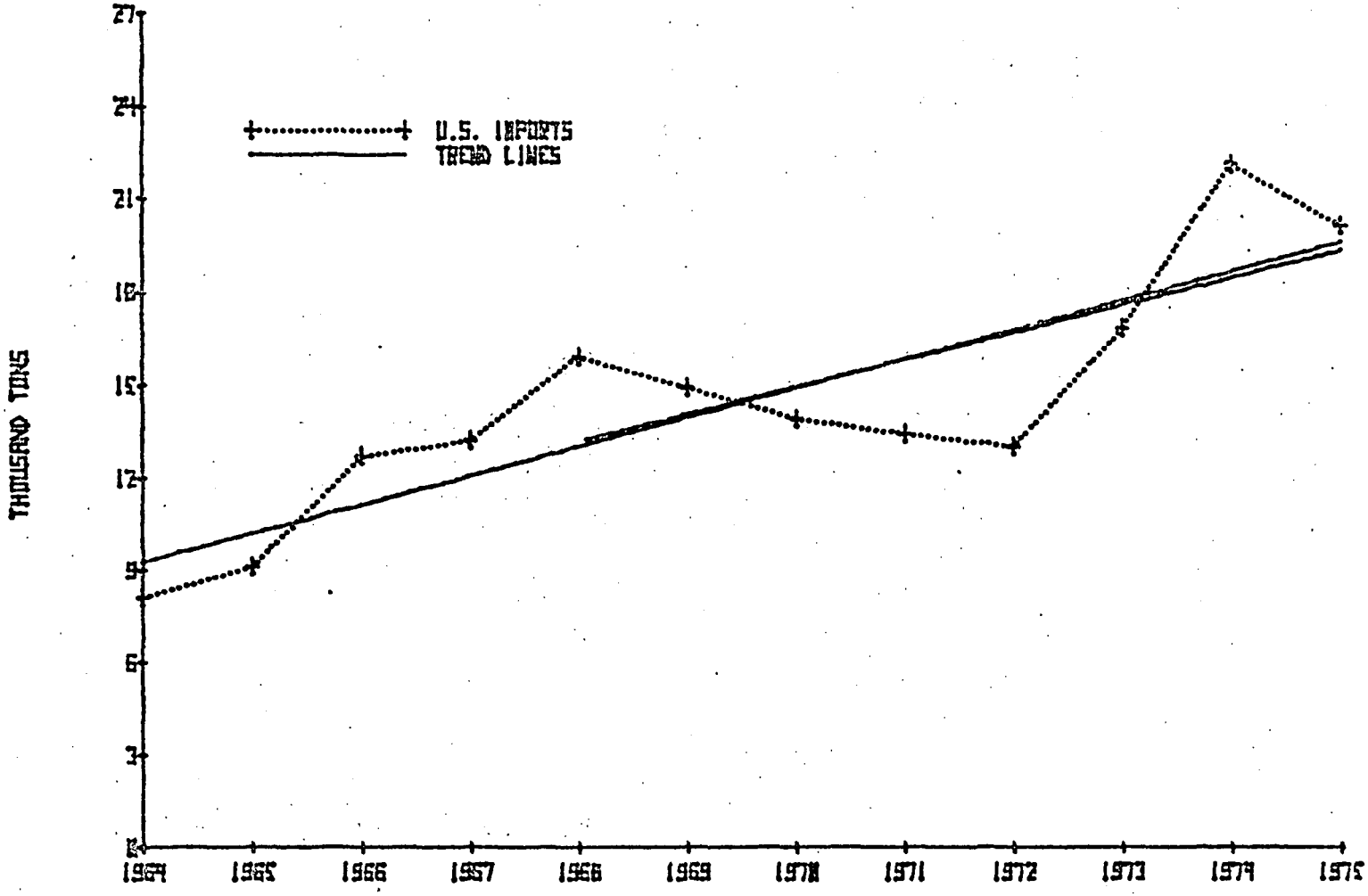
FIGURE 11.--RODS




NOTE: 1975 DATA PROJECTED ON THE BASIS OF JAN.-SEPT. STATISTICS.

Source: Shipments 1964-69, A.I.S.I; 1970-January-September 1975, U.S. International Trade Commission; imports 1964-January-September 1975, U.S. Department of Commerce.

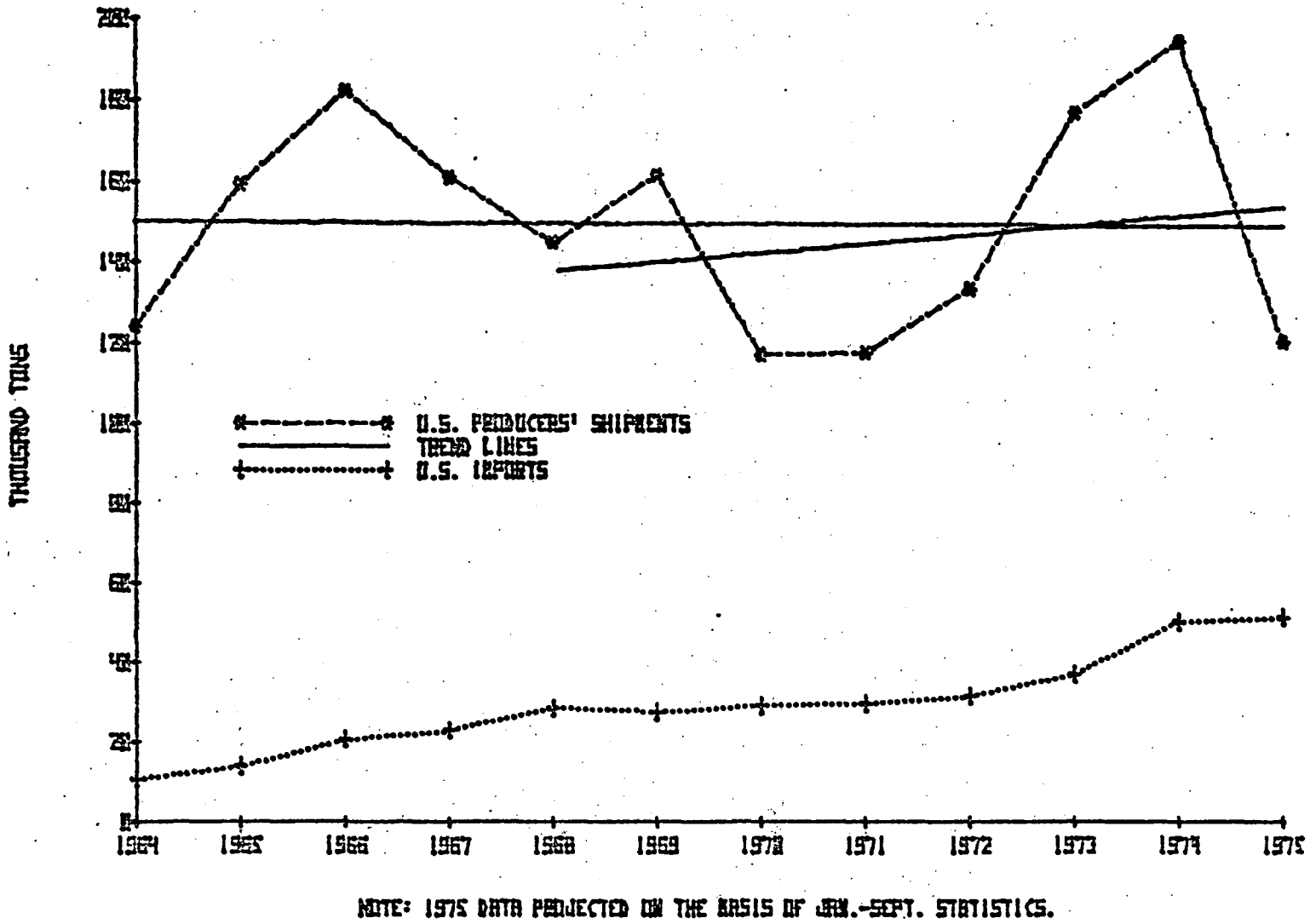
FIGURE 12.--U.S. IMPORTS OF RODS




NOTE: 1975 IMPORTS PROJECTED ON THE BASIS OF JAN.-SEPT. DATA.

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

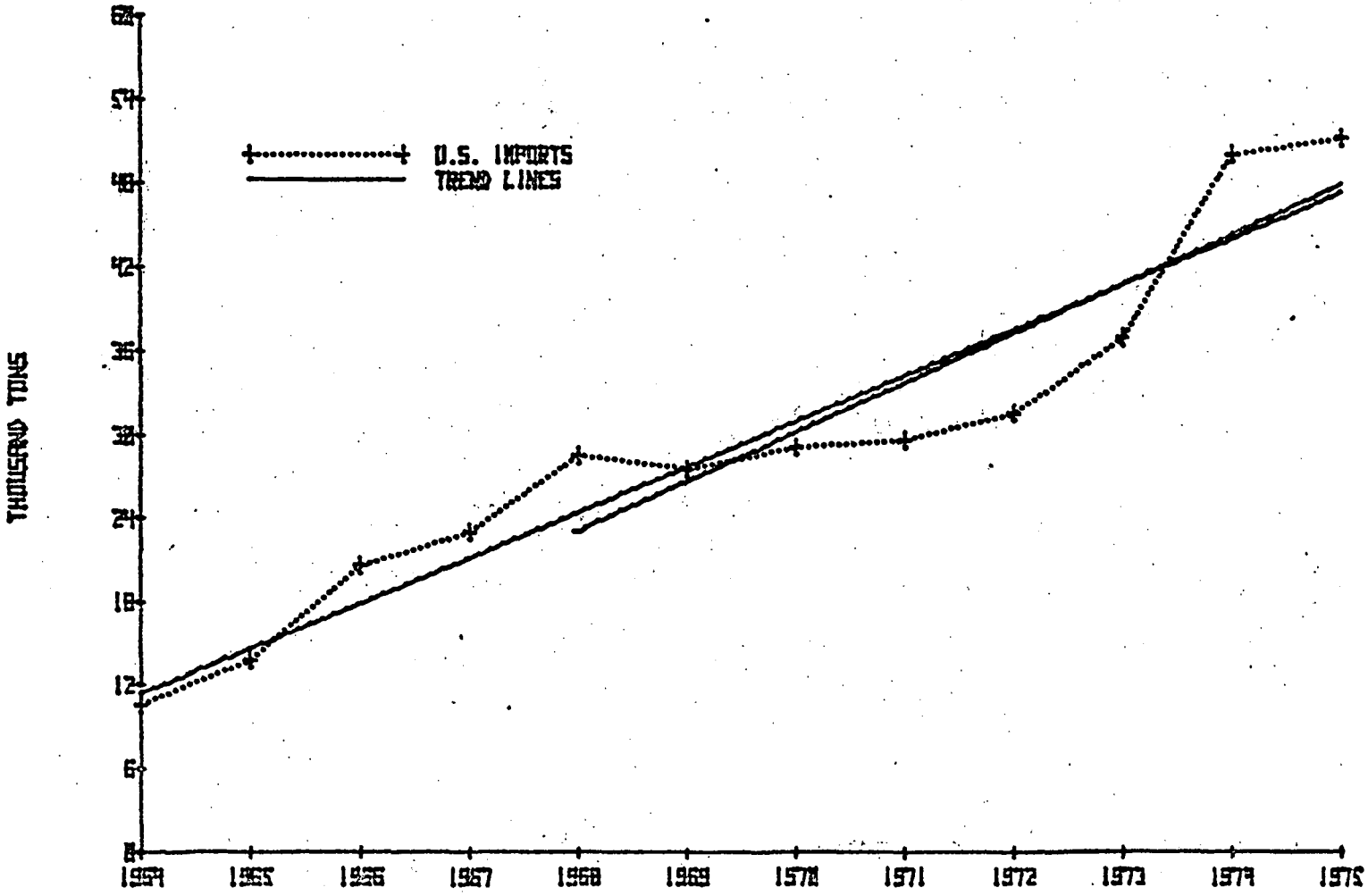
FIGURE 13.--BARS AND RODS




NOTE: 1975 DATA PROJECTED ON THE BASIS OF JAN.-SEPT. STATISTICS.

Source: Shipments 1964-69, A.I.S.I.; 1970-January-September 1975, U.S. International Trade Commission; imports 1964-January-September 1975, U.S. Department of Commerce.

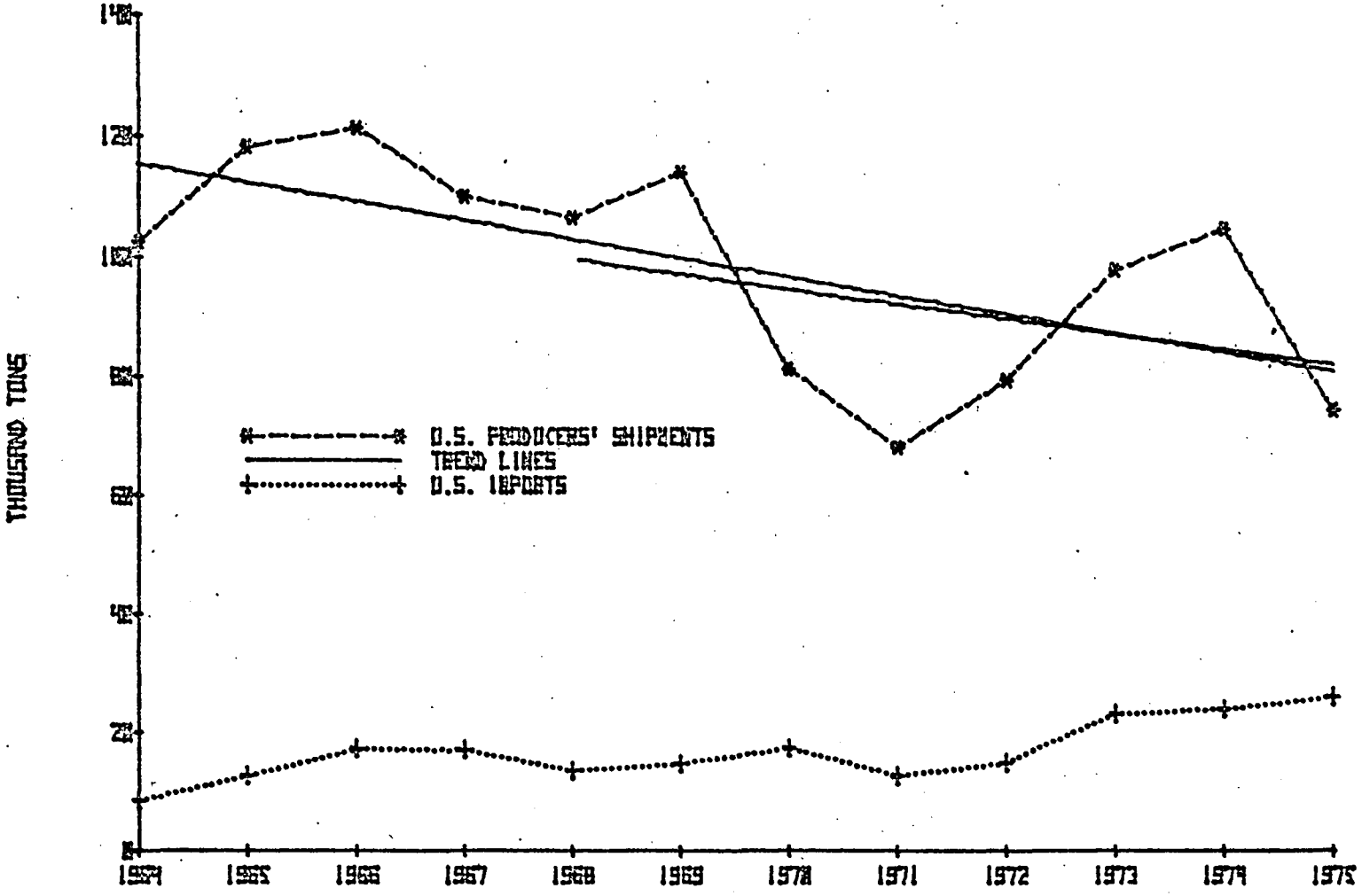
FIGURE 14.--U.S. IMPORTS OF BARS AND RODS




NOTE: 1975 IMPORTS PROJECTED ON THE BASIS OF JAN.-SEPT. DATA.

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

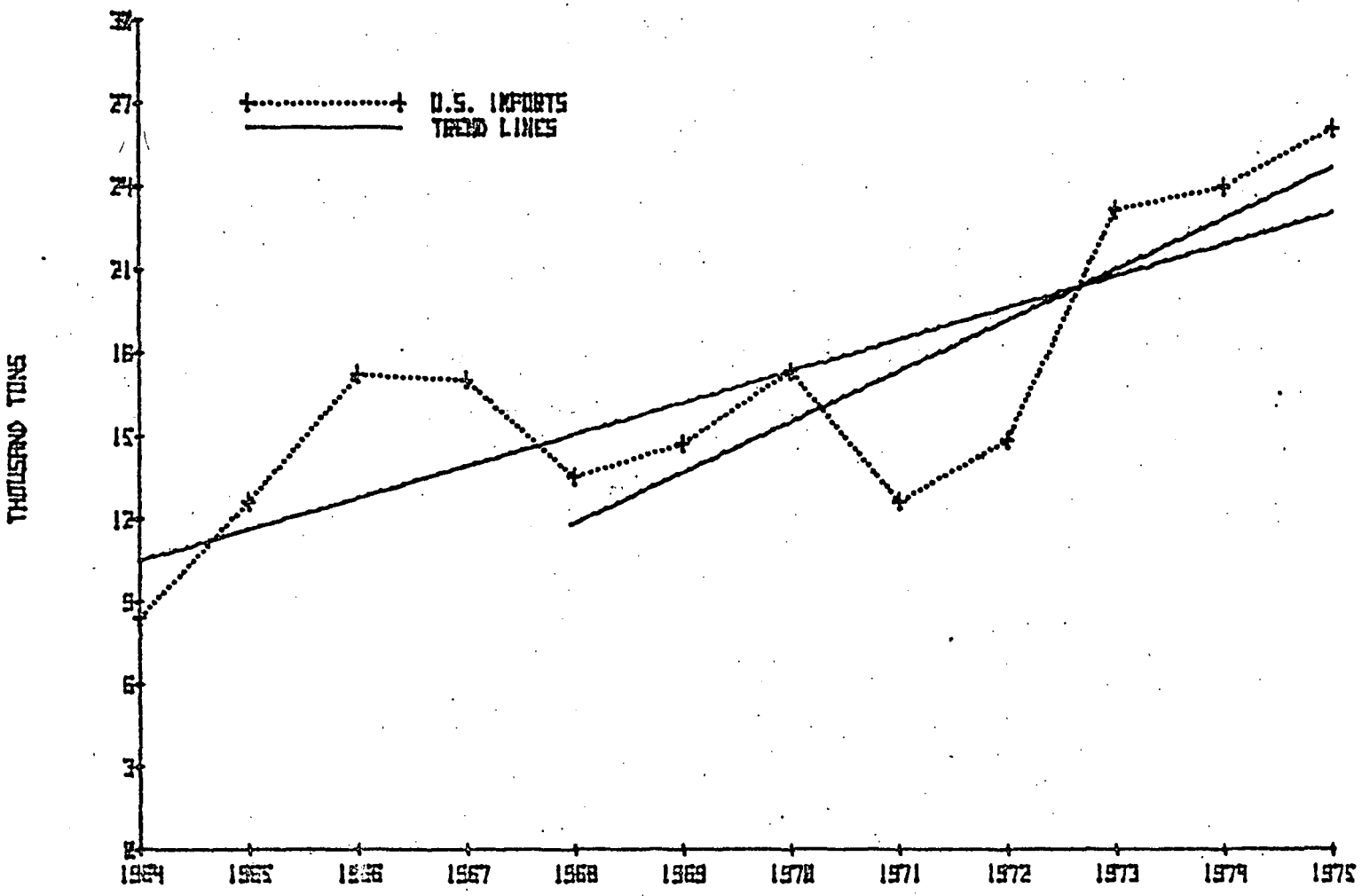
FIGURE 15.--ALLOY TOOL STEEL




NOTE: 1975 DATA PROJECTED ON THE BASIS OF JAN.-SEPT. STATISTICS.

Source: Shipments 1964-69, A.I.S.I.; 1970-January-September 1975, U.S. International Trade Commission; imports 1964-January-September 1975, U.S. Department of Commerce.

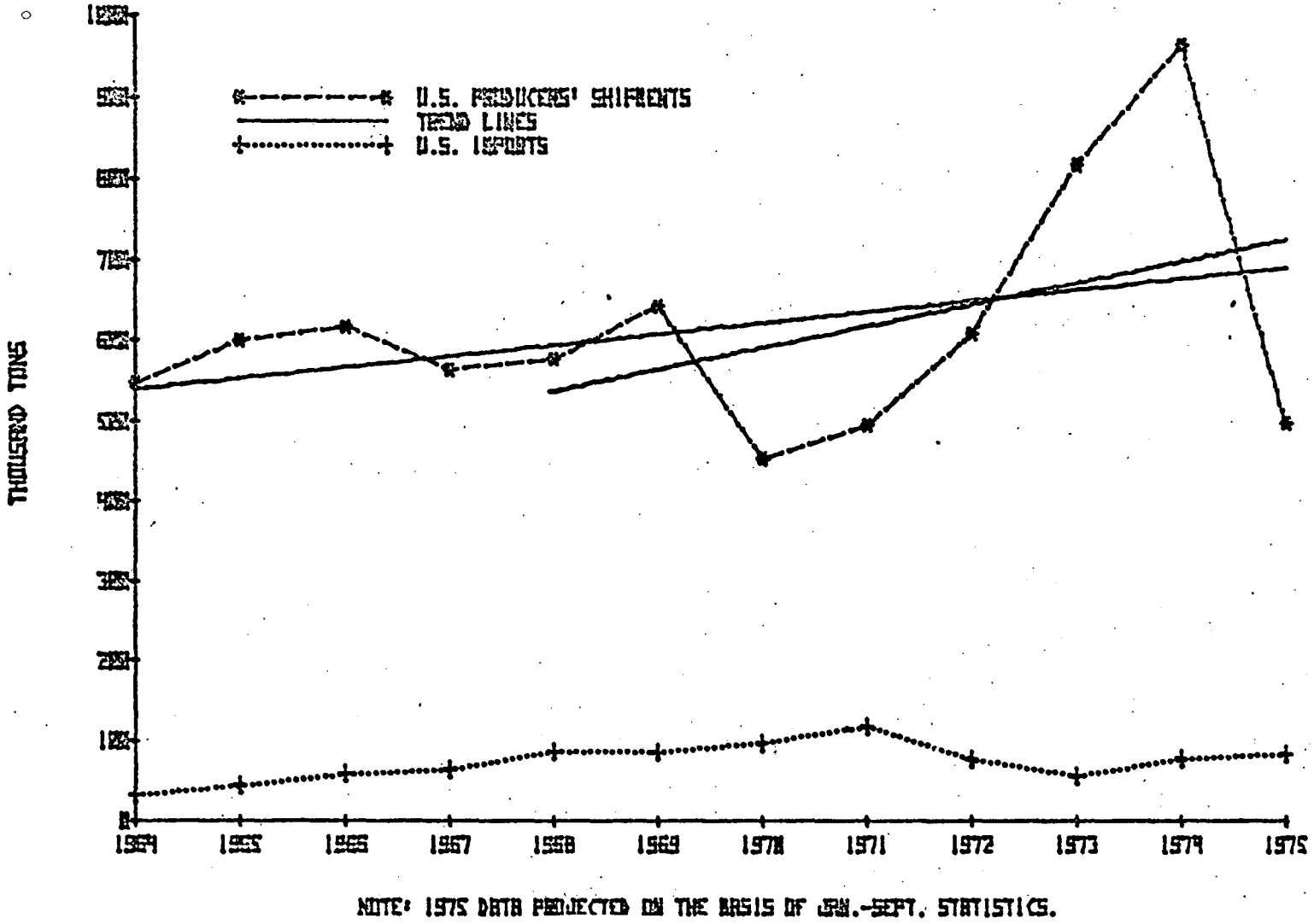
FIGURE 16.--U.S. IMPORTS OF ALLOY TOOL STEEL




NOTE: 1975 DATA PROJECTED ON THE BASIS OF JAN.-SEPT. STATISTICS.

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

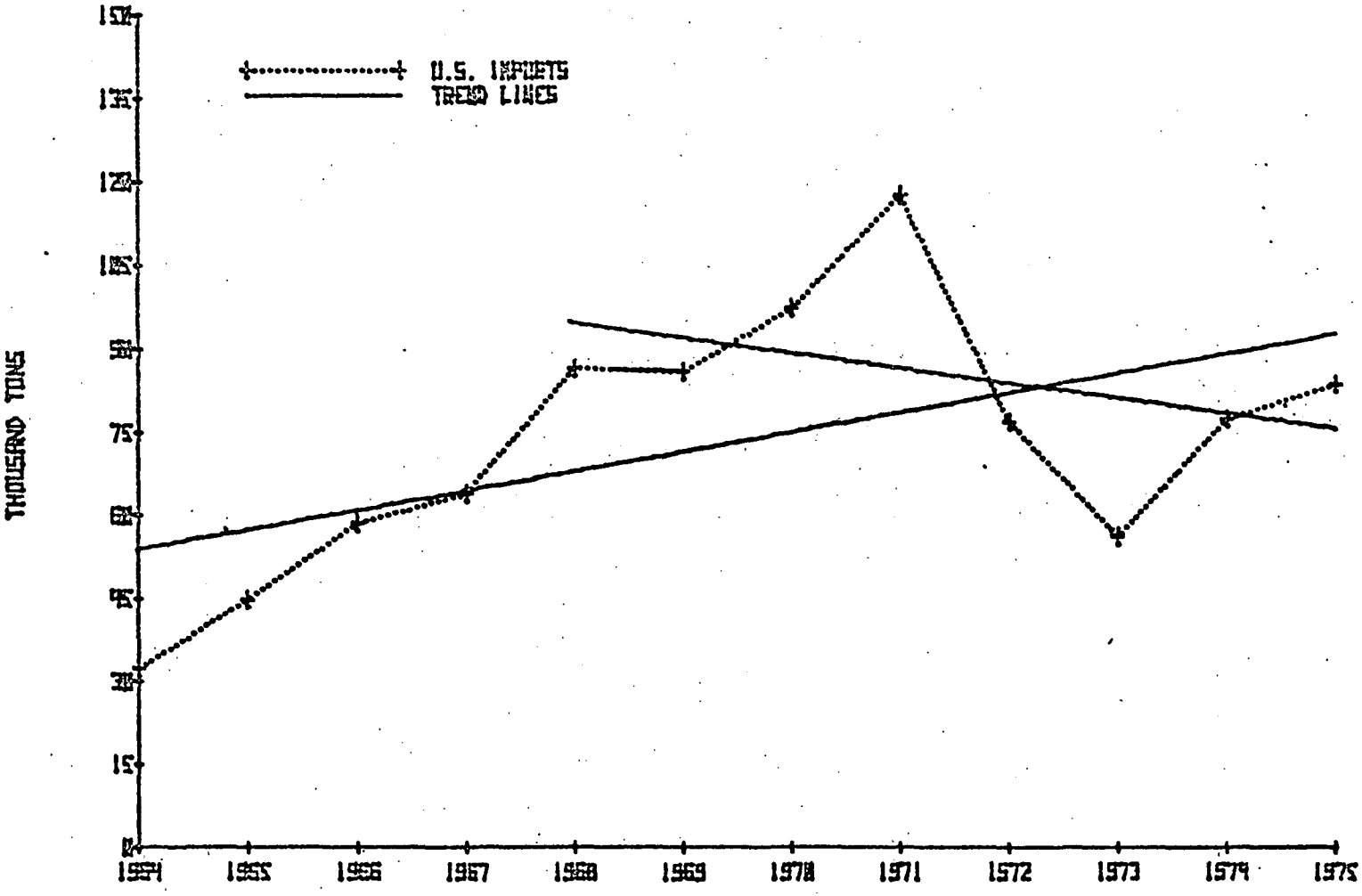
FIGURE 17.--FLAT ROLLED PRODUCTS




NOTE: 1975 DATA PROJECTED ON THE BASIS OF JAN.-SEPT. STATISTICS.

Source: Shipments 1964-69, A.I.S.I.; 1970-January-September 1975, U.S. International Trade Commission; imports 1964-January-September 1975, U.S. Department of Commerce.

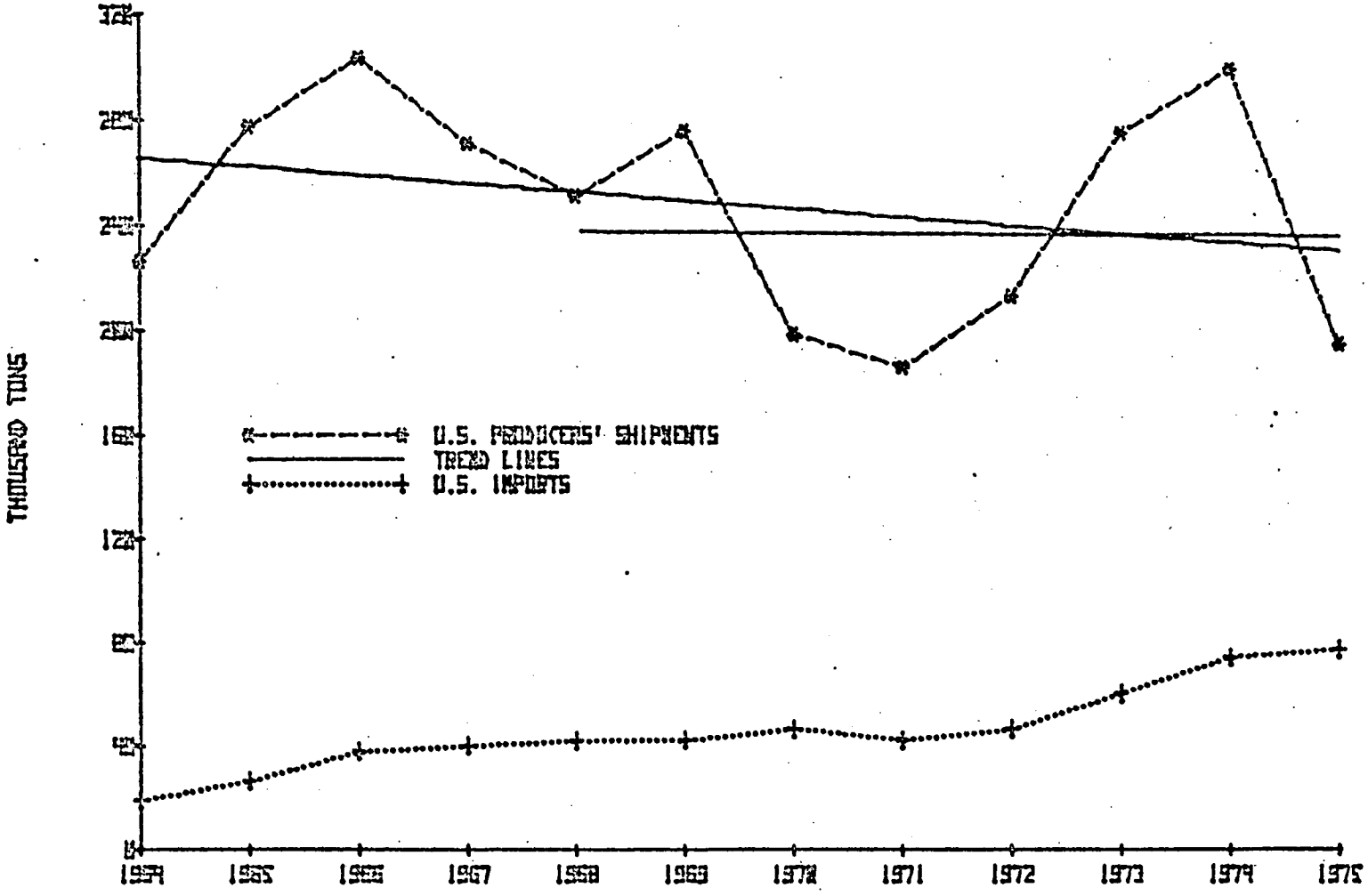
FIGURE 18.--U.S. IMPORTS OF FLAT ROLLED PRODUCTS




NOTE: 1975 IMPORTS PROJECTED ON THE BASIS OF JAN.-SEPT. DATA.

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

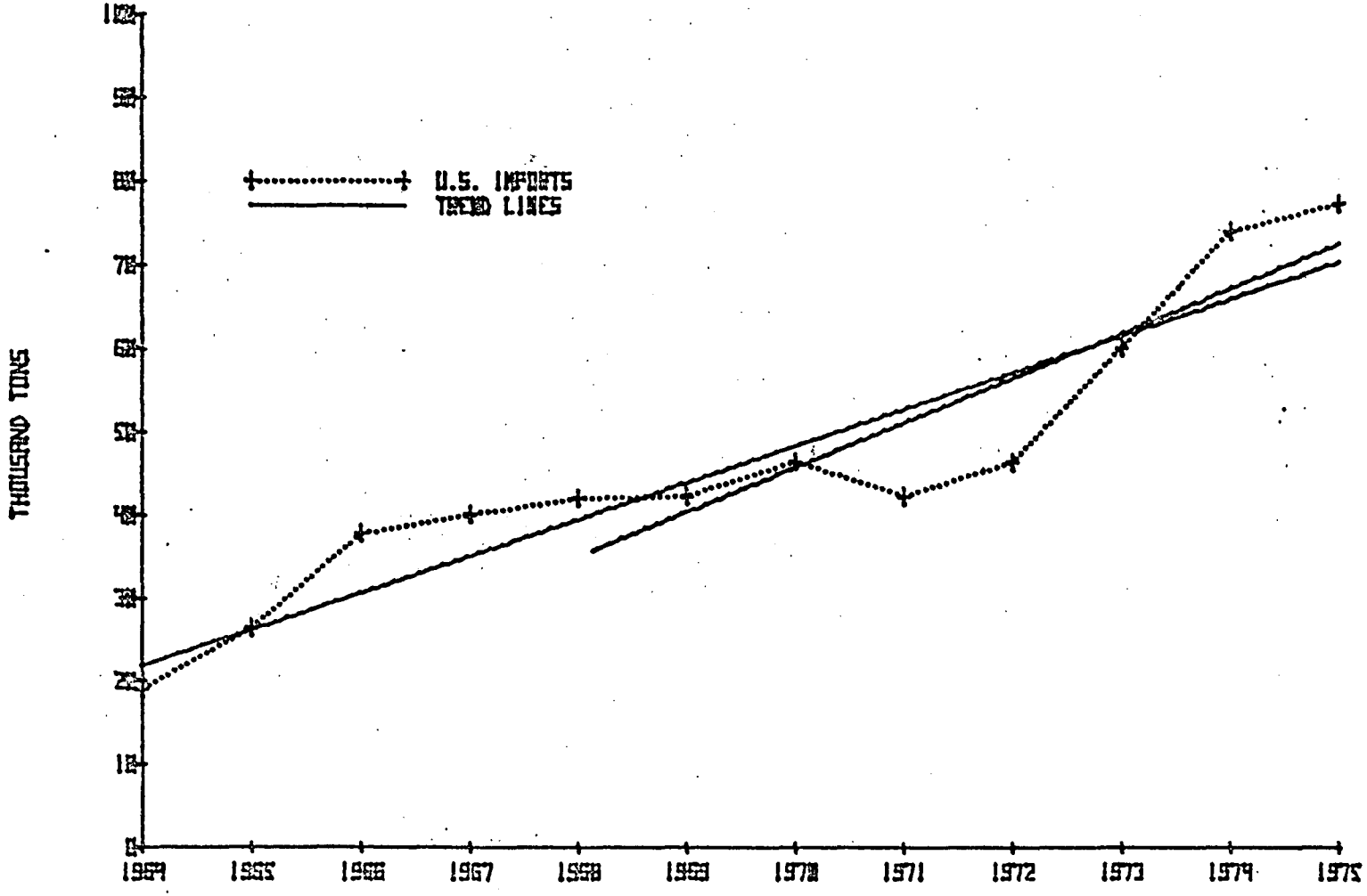
FIGURE 19.--STAINLESS STEEL BARS AND RODS AND ALLOY TOOL STEEL




NOTE: 1975 DATA PROJECTED ON THE BASIS OF JAN.-SEPT. STATISTICS.

Source: Shipments 1964-69, A.I.S.I.; 1970-January-September 1975, U.S. International Trade Commission; imports 1964-January-September 1975, U.S. Department of Commerce.

FIGURE 20.--U.S. IMPORTS OF STAINLESS STEEL BARS AND RODS AND ALLOY TOOL STEEL




NOTE: 1975 IMPORTS PROJECTED ON THE BASIS OF JAN.-SEPT. DATA.

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

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