UNITED STATES INTERNATIONAL TRADE COMMISSION

BOLTS, NUTS, AND SCREWS OF IRON OR STEEL

Report to the President
on Investigation No. TA-201-2
Under Section 201 of the Trade Act of 1974

USITC Publication 747
Washington, D.C.
November 1975

UNITED STATES INTERNATIONAL TRADE COMMISSION

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REPORT TO THE PRESIDENT

U.S. International Trade Commission,
November 24, 1975

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 wood screws and bolts, nuts, and screws of iron or steel.

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

> wood screws and bolts, nuts, and screws (including bolts and their nuts imported in the same shipment), all the foregoing of iron or steel, provided for in items 646.49, 646.54, 646.56, 646.58, 646.60, 646.63, and 646.79 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 threat thereof, to the domestic industry producing an article like or directly competitive with the imported article.

The investigation was instituted on June 13, 1975, upon receipt of a petition filed on May 22, 1975, by Russell, Burdsall & Ward, Inc., the Industrial Fasteners Institute, and the Cap Screw ans Special Threaded Products Bureau.

Public notice of the investigation and hearing were duly given by publishing the original notice in the Federal Register of June 26, 1975 (40 F.R. 27079). On August 6, 1975, the Commission issued a

public notice rescheduling the date of the hearing from August 19, 1975, to September 3, 1975. Notice of the rescheduled hearing was published in the Federal Register of August 11, 1975 (40 F.R. 33706). A public hearing in connection with the investigation was conducted from September 3 through September 12, 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 hearings and copies of briefs submitted by interested parties in connection with the investigation are attached.

The information for 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 hearings and in briefs filed by interested parties.

Determination of the Commission

On the basis of its investigation, the Commission determines (Commissioners Minchew and Bedell dissenting in part, Commissioner Parker abstaining) that wood screws and bolts, nuts, and screws (including bolts and their nuts imported in the same shipment), all the foregoing of iron or steel, provided for in items 646.49, 646.54, 646.56, 646.58, 646.60, 646.63, and 646.79 of 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 or directly competitive with the imported articles.

Views of Chairman Will E. Leonard

On May 22, 1975, the United States International Trade Commission (hereinafter referred to as Commission) received a petition filed by Russell, Burdsall & Ward, Inc., the Industrial Fasteners Institute, and the Cap Screw and Special Threaded Products Bureau requesting an investigation under section 201(b)(1) of the Trade Act of 1974 (hereinafter referred to as Trade Act) with respect to imports of bolts, nuts, and screws of iron or steel. The Commission on June 13, 1975, instituted such an investigation in order to determine whether bolts, nuts, and screws of iron or steel 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 articles like or directly competitive with such imported bolts, nuts, and screws.

The petition and investigation referred to above are the third to be received and the second to be instituted, respectively, by the Commission under the criteria, changed by the Trade Act, which must be met by an industry in order to be eligible for import relief. 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.

1/ For a comparison of the new Trade Act criteria with the predecessor criteria of sec. 301(b)(1) of the Trade Expansion Act of 1962, see the Statement of Reasons of Chairman Leonard in Birch Plywood Door Skins: Report to the President on Investigation No. TA-201-1 . . ., USITC Publication 743, October 1975, pp. 9-12.

(2) The domestic industry producing like or directly competitive 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.

Determination

As a result of evidence obtained by the Commission during the course of this investigation (investigation No. TA-201-2), I determine that the criteria as set forth in secton 201(b)(1) of the Trade Act for an industry to be eligible for relief from imports have not been met. Specifically, I find that the second criterion under section 201(b)(1), as set forth above, has not been met, i.e., that the domestic industry producing articles like or directly competitive with the imported articles is not being seriously injured or threatened with serious injury.

Since the criteria of section 201(b)(1) are cumulative, the failure to satisfy any one of the criteria necessitates the making of a negative determination, no matter what the facts show with respect to the other criteria. Because the instant negative determination is based on a finding that the "serious injury, or threat thereof" criterion is not met, the following discussion is limited to that criterion alone, as such finding makes it unnecessary to consider other issues which may have been raised in this investigation or to discuss other criteria.

Domestic industry

In considering whether the criterion of serious injury, or threat thereof, is satisfied in a given investigation, it is necessary to

determine what is "the domestic industry" which may be suffering the requisite injury. The Trade Act does not expressly define the term "domestic industry"; instead it sets forth certain guidelines and permits the Commission to use its best judgment within those guidelines and the economic factors present in a given case to determine the relevant domestic industry. Thus, section 201(b)(1) states that the domestic industry consists of the domestic producers of "an article like or directly competitive with the imported article." Section 201(b)(3) provides that--

> 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 domestic industry is not necessarily coterminous in terms of articles produced with the imported articles covered in the scope of the Commission's investigation. While the scope of investigation in terms of imported articles is defined in practice at the outset of the investigation and set forth in the notice published in the Federal Register (although subject to amendment during the course of the investigation),

the Commission determines what constitutes the "domestic industry" after it has gathered the relevant facts in the course of the investigation. The question of what is the domestic industry is discretionary with the Commission, and a Commissioner's decision is based on what he considers to be the relevant economic facts of an investigaton, having taken into account the statutory guidelines noted above. In certain investi¬gations, therefore, it may be appropriate to carve out two or more domestic industries from the universe of domestic producers of articles like or directly competitive with the imported articles. There is precedent for this carving out of distinct industries in Commission investigations decided under section 301(b)(1) of the Trade Expansion Act of 1962 (TEA), the predecessor section to section 201(b)(1) of the Trade Act. 1/ It is noted that Congress was aware of Commission precedent in this respect and made no changes in the statute, nor were there comments in the reports of its legislative committees, when reviewing the matter of domestic industry and adding section 201(b)(3),

1/ For example, see the Views of Chairman Bedell, Vice Chairman Parker, and Commissioner Moore in Antifriction Balls and Ball Bearings, Including Ball Bearings With Integral Shafts, and Parts Thereof: Report to the President on Investigation No. TEA¬I¬27 . . ., TC Publication 597, 1973, pp. 6, 11¬12; Views of Chairman Bedell, Vice Chairman Parker, and Commissioners Moore and Young in Ceramic Table and Kitchen Articles, Including Dinnerware: Report to the President on Investigation No. TEA¬I¬22 . . ., TC Publication 466, 1972, pp. 6¬7; Views of Chairman Bedell and Commissioners Sutton and Moore in Flat Glass and Tempered Glass: Report to the President on Investigation No. TEA¬I¬23 . . ., TC Publication 459, 1972, pp. 6¬7; Views of Commissioners Clubb and Moore in Nonrubber Footwear: Report to the President on Investigation No. TEA¬I¬18 . . ., TC Publication 359, 1971, pp. 7¬9; and Statement of Chairman Sutton and Commissioner Moore in Flat Glass and Tempered Glass: Report to the President on Investigation No. TEA¬I¬15 . . ., TC Publication 310, 1969, pp. 4¬5.

which indicate disapproval of this practice. Indeed, to approach the issue in any other fashion would have the Commission making decisions on what is the relevant domestic industry before there were facts available on which to make a reasonable decision; I cannot believe it was the intent of Congress that the Commission do so.

In the present investigation, economic factors strongly support a conclusion that there are two distinct groups of producers of articles like or directly competitive with the imported articles. The first group, which would constitute one domestic industry, consists of producers of bolts, 1/ nuts, and "large screws" (including lag screws, with all such "large" screws having shanks or threads over 0.24 inch in diameter); and the second industry consists of producers of "small" screws (i.e., wood screws, machine screws, and such tapping and other screws as have shanks or threads 0.24 inch in diameter or less).

In drawing this distinction it is noted that bolts, nuts, and large screws are almost always produced in separate establishments from those in which small screws are produced. They are produced by different firms on different equipment and use different metalworking technology and raw materials than is the case with small screws. Bolts,

1/ Bolts other than mine roof bolts. Mine roof bolts are very long bolts (generally 4 to 12 feet in length, made on specialized equipment from bar stock (rather than wire) in different establishments from other bolts considered here. Imports of mine roof bolts are nil. Mine roof bolts will not be further dealt with herein.

nuts, and large screws are all frequently produced in the same establishments, utilizing similar capital equipment, metalworking technology, raw materials, and labor skills. Nuts are used on approximately 80 percent of bolts and large screws but on only about 20 percent of small screws. Approximately 50 percent of nuts are produced in establishments producing bolts and large screws; the percentage of nuts produced in establishments producing small screws is negligible at best. Different types and sizes of small screws are frequently produced in the same establishments, on the same or similar capital equipment, and employ similar metalworking technology, raw materials, and labor.

What does the term "serious injury, or threat thereof" mean?

The "serious injury, or threat thereof" criterion is expressed in the disjunctive--that is, this criterion is satisfied if a finding either of "serious injury" or of "threat" of serious injury is made. And if a negative determination is to be made based on the failure of this criterion to be satisfied, there must be findings both of no serious injury and of no threat of serious injury.

The Trade Act provides no definition of the term "serious injury." As in the case of the term "domestic industry," the act provides guidelines in the form of certain "economic factors" which the Commission should take into account. In making a determination with respect to "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 these enumerated factors is not found in the precursor provision of section 201(b)(2). 1/ The word clearly implies that the idling of productive facilities, and so forth, must be of important magnitude.

1/ Sec. 301(b)(2) of the TEA provided in part:
The . . . Commission shall take into account all economic factors which it considers relevant, including idling of productive facilities, inability to operate at a level of reasonable profit, and unemployment or underemployment.

Further, the term "serious injury" can be contrasted with the term "material injury" used in section 406 of the Trade Act. The term "serious injury" is intended to represent a greater degree of injury than the term "material injury," according to the Report of the Senate Committee on Finance on the bill which became the Trade Act. 1/

In view of the facts that the concept of serious injury is unchanged from that under the TEA and that Congress, in writing and enacting the Trade Act, was aware of Commission practice with respect to this concept under the TEA, past Commission interpretations of the meaning of the term are helpful in determining the meaning of serious injury. Under the TEA, affirmative Commission findings of serious injury generally rested heavily on findings of plant closings, declining employment, and rapidly deteriorating, low, or nonexistent profits, or losses.

In the absence of precise statutory definitions of terms, dictionary definitions can be helpful. In fact, as a general rule, the meaning of statutory words is to be derived by considering the common, ordinary meaning given to the words unless the statute indicates otherwise. Webster's New International Dictionary (2d edition, 1953) defines "injury" as "Damage or hurt done to or suffered by a person or thing; . . . An act which damages, harms, or hurts . . ." Webster's

1/ U.S. Senate, Committee on Finance, Trade Reform Act of 1974, S. Rept. No. 93-1298, 93d Cong., 2d sess., p. 212.

defines "serious" as meaning "Grave in disposition, appearance, or manner; . . . Important; weighty; not trifling; grave; . . . Giving rise to apprehension; attended with danger; as, a serious injury." It would seem, therefore, considering only the dictionary meaning, that "serious injury" requires a finding of damage or a hurt of grave or important proportions.

What is the time frame to be considered in determining serious injury? Section 201(b)(1) uses the present tense. New and continuing injury from increased imports, as opposed to "old" injury, is apparently the injury for which relief is to be provided. There are no guidelines set forth in the statute or the legislative history for determining the relevant "present" period. The statute thus leaves the question open to Commission discretion. It is my view that "present" injury must be found by examining a time span which discounts brief and transitory episodes in the performance of the domestic industry and establishes a realistic performance for the industry in the present.

Section 201(b)(1) of the act provides no definition with respect to "threat" of serious injury, a situation analogous to that with respect to serious injury. The Commission is to consider "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 . . ."

The report of the House Committee on Ways and Means 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 report of the Senate Committee on Finance 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 import trends continued unabated. 2/

1/ U.S. House of Representatives, Committee on Ways and Means, Trade Reform Act of 1973, H. Rept. No. 93-571, 93d Cong., 1st sess., p. 47.

2/ U.S. Senate, Committee on Finance, Trade Reform Act of 1974, S. Rept. No. 93-1298, 93d Cong., 2d sess., p. 121.

No serious injury or threat thereof to producers of bolts, nuts, and large screws

Having set out an explanation of the criterion "serious injury, or threat thereof," it is appropriate now to see what the facts in this investigation reveal with respect to the satisfaction of that criterion.

The evidence obtained in this investigation leads to the conclusion that that criterion is not satisfied.

Significant idling of productive facilities.--The closing of a few facilities producing bolts, nuts, and large screws in the past several years is not a significant idling of productive facilities. Republic Steel Corporation was the only major producer of bolts, nuts, and large screws to cease operations entirely during the period 1967-75. Republic Steel Corporation closed its Bolt and Nut Division in December 1972. However, during the same period several new producers entered the domestic industry.

Inability of a significant number of firms to operate at a reasonable level of profit.--For the past 3 years the domestic industry has operated at a reasonable level of profit. Net operating profits increased from $36 million in 1972 to $83 million in 1973 and to $183 million in 1974. Net operating profits of the domestic industry were $57 million for the first 6 months of 1975. Of approximately 100 firms responding to the Commission's questionnaire, fewer than 5 firms reported a net annual loss during the period 1973-74.

The ratio of net operating profits to net sales for the domestic industry was 4.2 percent in 1971, 5.4 percent in 1972, 9.4 percent in 1973, 15.6 percent in 1974, and 14.2 percent in the first 6 months of 1975. This ratio for the domestic industry has exceeded a comparable ratio recorded by the overall metal-manufacturing industry in 1973 and 1974. The average ratio of net earnings to net sales for the metal-manufacturing industry was about 4.4 percent in 1971, 6.6 percent in 1972, 7.8 percent in 1973, and 12.4 percent in 1974.

Significant unemployment or underemployment.--This domestic industry has experienced an increase in employment in recent years. The average number of production workers engaged in the production of bolts, nuts, and large screws of iron or steel increased from 16,900 in 1972 to 17,400 in 1974.

Prices.--Prices of domestic bolts, nuts, and large screws have increased rapidly during the past 3 years. After 1971, the prices of domestic fasteners rose through at least the third quarter of 1974 in both the distributor market and the original-equipment market, leveling off or falling only slightly thereafter. A comparison of price indexes for the products of the domestic industry with BLS price indexes for durable goods and miscellaneous metal products shows that fastener prices increased more rapidly beginning in 1973 and, even with a slight decline in 1975, remained at much higher levels than the prices of other metal products.

Threat.--Current import trends lead to the conclusion that this industry is not threatened with serious injury. Imports of bolts, nuts, and large screws were 26 percent lower in January-September 1975 than in the corresponding period of 1974. Imports have abated in response to the same economic factors which are temporarily affecting the domestic industry. Despite declining demand, the U.S. producers have maintained a very adequate level of profit (14.2 percent of net sales) during January-June 1975. Any difficulty the U.S. producers are now facing is the result of highly unusual economic conditions.

No serious injury or threat thereof to producers of small screws

With regard to the second industry previously referred to, that is, the industry producing small screws, again I do not find the second statutory criterion satisfied, namely, that the domestic industry is seriously injured or threatened with serious injury as a result, in substantial part, of increased imports. Even if it is assumed that the articles enumerated above are being imported in increased quantities, which I believe is arguable, I do not view this domestic industry as one experiencing serious injury or the threat thereof.

Significant idling of productive facilities.--During the period 1969-74, more establishments producing small screws entered this industry than closed down.

Inability of a significant number of firms to operate at a reasonable level of profit.--Since 1969, profits, as a percent of

net sales before taxes, have never fallen below 6.5 percent and in fact have been substantially higher than that in most years. Profits in this industry have been higher than those in other metal-fabricating industries.

Significant unemployment or underemployment within the industry.--The average number of production and related workers engaged in the manufacture of the subject products increased from about 11,000 in 1972 to about 12,000 in 1974.

Threat.--The facts relating to the small screw industry run parallel to those relating to the bolt, nut, and large screw industry. Therefore, I conclude that the small screw industry is not being threatened with serious injury.

Conclusion

As indicated above, I have determined that the requirements of section 201(b)(1) of the Trade Act have not been satisfied. Specifically, I have determined that neither the domestic industry producing bolts, nuts, and large screws of iron or steel nor the industry producing small screws of iron or steel is being seriously injured or threatened with serious injury within the meaning of the statute.

Views of Commissioner George M. Moore 1/

On June 13, 1975, the United States International Trade Commission instituted an investigation requested by Russell, Burdsall & Ward, Inc., the Industrial Fasteners Institute, and the Cap Screw and Special Threaded Products Bureau, under section 201(b)(1) of the Trade Act of 1974 to determine whether bolts, nuts, and screws of iron or steel 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 a domestic industry producing an article like or directly competitive with such imported bolts, nuts, and screws.

For a domestic industry to receive an affirmative determination from the Commission to qualify it to be eligible for import relief or for adjustment assistance, the Trade Act of 1974 requires that all three of the identifiable statutory criteria shall be met:

(1) Imports of the article concerned must be entering in increased quantities.

(2) The domestic industry producing like or directly competitive articles must be seriously injured or threatened with serious injury.

(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.

Failure to satisfy any one of the statutory criteria necessitates a negative determination.

1/ Commissioner Italo H. Ablondi concurs in the result with respect to the lack of serious injury, or threat thereof, to the domestic industry.

Increased imports

There seems to be general agreement by the Commission that bolts, nuts, and screws of iron or steel are being imported in increased quantities.

Negative determination

On the basis of the evidence obtained by the Commission during this investigation, I have determined that not all of the criteria as set forth in section 201(b)(1) of the Trade Act for a domestic industry to be entitled to an affirmative determination have been met. Specifically, at this time, I find that neither the second nor the third criterion under section 201(b)(1) cited above has been met. Even assuming that a domestic industry is suffering serious injury, or threat thereof, increased imports of bolts, nuts, and screws of iron or steel are not a substantial cause of such injury, or the threat thereof.

Industry definition

In my opinion the domestic industry in this case consists of the facilities in the United States engaged in the production of bolts (except mine roof bolts), nuts, and screws of iron or steel (hereinafter referred to as the domestic industry).

"Serious injury"

With respect to serious injury, section 201(b)(2) of the Trade Act of 1974 requires the Commission to take into account all economic factors enumerated therein. Evidence developed during the Commission's investigation indicates that the domestic industry is suffering some

injury from increased imports. However, in order for the statutory requirement to be met, such injury must be "serious." This criterion was not changed in the 1974 Trade Act from an earlier provision in the Trade Expansion Act of 1962. Over the years since 1962 a number of Commissioners have established or accepted the definition of "serious injury" to be "an important, crippling, or mortal injury; one having permanent or lasting consequences." 1/ Such injuries are to be distinguished from the less important and temporary injuries which domestic concerns are expected to absorb without Government assistance.

Section 201(b)(2)(A) of the 1974 act now requires the Commission to investigate, with respect to serious injury, the inability of a significant number of firms to operate at a reasonable level of profit. For the past 5 years the domestic industry has operated at a reasonable level of profit. Net operating profit increased from $47 million in 1971 to $74 million in 1972, to $137 million in 1973, and to $244 million in 1974. Net operating profit of the domestic industry was $65 million for January-June 1975, nearly equal to the rate of annual net profit for 1973. Of the approximately 100 firms responding to the Commission's questionnaire, four reported net losses in 1973 and only one reported a net loss in 1974.

The ratio of net operating profit to net sales for the domestic industry was 5.2 percent in 1971, 6.6 percent in 1972, 10.4 percent in

1/ Pianos and Parts Thereof, Investigation No. TEA-I-14, TC Publication 309, (December 1969), p. 6, Flat Glass and Tempered Glass, Investigation No. TEA-I-15, TC Publication 310, (December 1969), p. 28, Nonrubber Footwear, Investigation No. TEA-I-18, TC Publication 359, (January 1971), p. 20.

1973, 14.8 percent in 1974, and 12.7 percent in January-June 1975. This ratio for the domestic industry has equaled or exceeded a comparable ratio recorded by the overall metal manufacturing industry since 1971. The average ratio of net earnings to net sales for the metal manufacturing industry was about 4.4 percent in 1971, 6.6 percent in 1972, 7.8 percent in 1973, and 12.4 percent in 1974.

Section 201(b)(2)(A) also requires the Commission to examine the significant idling of productive facilities in the industry in connection with serious injury. The closing of a few facilities producing bolts, nuts, and screws in the past several years does not constitute "serious" injury to the industry. In the recent closings, most of the capital equipment was moved to other locations, where it is now in operation. Republic Steel Corp. was the only major producer to cease fastener operations entirely during the period 1967-75. Republic Steel Corp. closed its Bolt and Nut Division in December 1972. However, during the same period several new producers--Zelda Fasteners (1972), Hunckler Products (1974), and Associated Screw Manufacturing Co. (1975)--came on stream and entered the domestic industry.

Under section 201(b)(2)(A) the Commission is also required to investigate significant unemployment or underemployment within the domestic industry. This domestic industry has experienced a significant increase in employment in recent years. The average number of production workers engaged in the production of bolts, nuts, and screws of iron or steel increased from 27,000 in 1971 to nearly 29,000 in 1974.

The Commission also investigated other economic factors which have a bearing on the question of serious injury.

Prices of domestic fasteners have increased rapidly during the past 3 years. After 1971 the prices of domestic fasteners rose through at least the third quarter of 1974 in both the distributor and original-equipment-manufacturer (OEM) markets, leveling off or falling only slightly thereafter. A comparison of price indexes of the domestic industry with BLS price indexes for durable goods and miscellaneous metal products shows that fastener prices increased more rapidly beginning in 1973 and, even after declining slightly in 1975, remained at much higher levels than other metal products.

The domestic industry has not only maintained but increased its sizable export market. U.S. exports of bolts, nuts, and screws of iron or steel declined from 113 million pounds in 1969 to 99 million pounds in 1971 and then increased to 187 million pounds in 1974. During January-June 1975, exports amounted to 95 million pounds, 9 percent greater than in the corresponding period of 1974. The value of U.S. exports remained relatively constant during the years 1969-72, averaging approximately $60 million. Exports then increased substantially in value to $125 million in 1974. In January-June 1975 the value of exports totaled $68 million, 21 percent greater than in the corresponding period of 1974.

With respect to threat of serious injury to the domestic industry, most economic indicators during the past few months point to an upturn in the U.S. economy and they suggest that the Nation is now beginning to experience an economic recovery. This is especially true in the

automobile and durable goods industries, which are primary fastener-consuming markets.

In view of the foregoing evidence relating to the domestic industry, there is no basis upon which to conclude that such industry is suffering, or is threatened with, serious injury.

Increased imports not a "substantial cause" of injury

The Trade Act of 1974 in section 201(b)(4) defines "substantial cause" to mean "a cause which is important and not less than any other cause." Thus, imports must constitute both an "important" cause of the serious injury and be "not less than any other cause." Even assuming that the domestic industry is suffering serious injury, or threat thereof, there is no basis for concluding that increased imports are a substantial cause of such injury.

Section 201(b)(2)(C) requires the Commission to take into account, 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. While imports increased in 1974, which resulted in an increasing imports-to-consumption ratio, nevertheless, other evidence and economic factors must be considered in order to determine whether imports were a substantial cause of serious injury to the domestic industry.

With respect to the three economic factors enumerated in section 201(b)(2)(A) of the statute, the evidence fails to support the conclusion that increased imports were a substantial cause of serious injury to the domestic industry.

First, the evidence shows that the facilities which closed during the past 6 years were old and inefficient.

Second, imports reached their highest level in 1974, but, at the same time, the domestic industry enjoyed the highest sales, production, and profits in its history.

Third, any decrease in employment since 1969 is explained by rising productivity rather than increased imports. The Commission report accompanying this opinion cites the three reasons for this increased productivity. The Commission report also shows that domestic production (output) per production-worker man-hour increased 18 percent from 1969 to 1974.

Imports have not suppressed domestic prices of fasteners during the past 3 years. During 1973, the historical price differential between domestic and imported fasteners was greatly reduced, with some weighted average prices for imported fasteners already above comparable weighted prices of U.S.-made fasteners. In January-June 1974, most of the imported bolts, nuts, and large screws and some of the small imported screws were priced above the U.S. products by 15 to 30 percent. However, late in 1974, import prices fell, and by mid-1975 the imported fasteners sold at prices below the U.S. producers' prices. According to testimony in the hearings and information from trade sources, import prices are beginning to rise again in the third quarter of 1975. Significantly, imports were at their highest level in 1974, when import prices were 15 to 30 percent above domestic prices. The 1974 price rise began in late 1973 by reason of the worldwide steel shortage, then pushed upward with the rising demand and duplicate orders for fasteners. These conditions affected the prices

of both the domestically produced and the imported fasteners. Imported fasteners reached record levels while selling at premium prices above those of domestically made fasteners because the domestic industry was unable to supply the demand in 1974. Many independent distributors could not obtain the domestically produced fasteners they required. Imports supplied this inordinate demand. This inability of the domestic industry to supply demand is even a more important cause of injury than imports because it has resulted in lost customers.

Imports cannot be blamed for the increased inventories of domestic producers in 1975 because imports, in fact, have declined significantly during the first 9 months of 1975 compared with imports in the corresponding period in 1974. Rather it was the failure of the domestic industry to anticipate market demand properly that caused the current inventory buildup.

The evidence shows that whatever sales the domestic industry lost to imports in the past several years, they were nominal. Where such lost sales did occur, they resulted from the domestic industry's inability to supply market demand.

To some extent the domestic industry is fortified against serious injury from imports because more than 70 percent of all domestic shipments are sold directly to the original-equipment-manufacturer market. The largest OEM customers are the motor vehicle manufacturers, which purchased in 1974 at least 25 percent of all U.S.-made fasteners. Firms such as Federal Screw Works, Ring Screw Works, Town Robinson Fastener Co., and Michigan Screw Products--major producers in the industry--which sell principally to the automobile industry, are less susceptible to the impact

of imports than other firms for two reasons. First, the automobile industry requires many limited-purpose fasteners and, second, its representatives often inspect the fastener plants to be certain that the products meet the standards of the Automobile Safety Act. Other large OEM customers of U.S.-made fasteners are firms producing nonelectric machinery (including farm equipment) and rail and other miscellaneous transportation equipment. These customers purchase many limited-purpose fasteners and generally follow "Buy American" policies.

It is well known that cyclical fluctuations in the production of durable goods have been more pronounced than in the production of nondurable goods. Because the demand for fasteners is derived from the demand for automobiles, machinery, appliances, and other durable goods, the fastener industry is also cyclical in nature. The foregoing evaluation of the evidence developed in this investigation shows that the general economic condition which has prevailed in the United States during the past several years is a cause greater than imports in connection with any serious injury the domestic industry may be suffering, or with which it may be threatened.

Conclusion

Therefore, I have made a negative determination. I find that bolts, nuts, and screws of iron or steel 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 articles like or directly competitive with the imported articles.

Views of Vice Chairman Daniel Minchew and Commissioner Catherine Bedell

On May 22, 1975, the United States International Trade Commission received a petition filed by Russell, Burdsall & Ward, Inc., the Industrial Fasteners Institute, and the Cap Screw and Special Threaded Products Bureau requesting an investigation under section 201 of the Trade Act of 1974 with respect to imports of bolts, nuts, and screws. On June 13, 1975, the Commission instituted an investigation to determine whether wood screws and bolts, nuts, and screws (including bolts and their nuts imported in the same shipment), all the foregoing of iron or steel, provided for in items 646.49, 646.54, 646.56, 646.58, 646.60, 646.63, and 646.79 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 threat thereof, to the domestic industry producing articles 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) That imports of an article into the United States are increasing (either actually or relative to domestic production);

(2) That 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) That 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 with the imported article.

Determination

After considering the evidence obtained in this investigation, we have determined that the bolts, nuts, and screws classified under TSUS(A) items 646.4920, 646.54, 646.56, and 646.63 (except mine roof bolts classified under item 646.54) 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, we have determined that the mine roof bolts classified under TSUS item 646.54 and the screws classified under TSUS(A) items 646.4940, 646.58, and 646.60 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. And finally, we make no finding with respect to the bolts, nuts, and screws of iron or steel entered free of duty from Canada under item 646.79 of the TSUS as original equipment for motor vehicles.

The domestic industry

Imports of the articles covered by this investigation affect primarily two separate groups of domestic producers of like or directly competitive products. The first group, for which we are finding in the affirmative, consists of the producers of bolts (other than mine roof bolts 1/), nuts, and "large" screws (i.e., screws having shanks or threads over 0.24 inch in diameter). These fasteners account for roughly two-

1/ Mine roof bolts, which are very long bolts used to shore up mine overheads, are made on specialized equipment in different establishments than the bolts considered here. We have made a negative determination with respect to such bolts because few are imported. Such bolts will not be further dealt with herein.

thirds of the value of annual domestic production of all bolts, nuts, and screws. The second group, for which we are finding in the negative, consists of the producers of "small" screws (i.e., wood screws, machine screws, and tapping and "other" screws having shanks or threads not over 0.24 inch in diameter).

These two groups of producers constitute two distinct industries. On the one hand, bolts and large screws are almost always produced in the same establishments, utilizing similar capital equipment, metal-working technology, raw materials, and labor skills. These same establishments produce roughly half of the nuts made in the United States. Moreover, wherever they are made, the production of nuts involves machinery common to the production of bolts and large screws and some of the same production processes and techniques.

On the other hand, small screws are generally produced in establishments which do not produce bolts, nuts, and large screws. The manufacture of small screws requires capital equipment, metal-fabricating processes, and raw materials that are different from those used in the output of the larger fasteners.

In view of the circumstances just described, it is our view that two separate identifiable industries produce articles like or directly competitive with the imported articles of concern in this investigation. As indicated above, we have reached different conclusions with respect to these two industries as to the fulfillment of the statutory criteria. We shall discuss first our reasons for an affirmative finding regarding

the producers of bolts, nuts, and large screws and second, our reasons for a negative finding regarding the producers of small screws.

Affirmative determination with respect to bolts, nuts, and large screws.

Increased imports.--The Trade Act provides, at section 201(b)(2)(C), that an increase in imports has occurred when the increase is "either actual or relative to domestic production." Thus, the requirement is satisfied when the increase is in "actual" or absolute terms or where the level of imports is declining in actual terms but is increasing relative to domestic production.

In the case at hand, marked changes in the U.S. economy in the most recent years have strongly influenced U.S. demand for the products considered here. Because of these circumstances, it is necessary to analyze developments not only for the short term of 2 or 3 years, but also for the longer term. This approach is supported by the views of the Senate Finance Committee when reporting on the Trade Act of 1974. 1/

Imports of bolts, nuts, and large screws have increased almost steadily in recent years, both in absolute and relative terms. During the period 1969-74, imports increased from 372 million pounds, valued at $69 million, to 776 million pounds, valued at $389 million. The increase amounted to a doubling of the quantity and more than a quintupling of the value during the period. Relative to the U.S. production,

1/ See the report of the Committee on Finance, U.S. Senate, Trade Reform Act of 1974, S. Rept. No. 93-1298, 93d Cong., 2d sess., at p. 120 (hereinafter "Finance Report"): "The increases 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."

imports rose from 25 percent in 1969 to 51 percent in 1974. Although imports were somewhat smaller in absolute terms during the first 6 months of 1975 than in the corresponding period of 1974, imports, as a ratio of domestic production, increased from 42 percent to 44 percent. One conclusion emerges from these facts--imports of bolts, nuts, and large screws enumerated in TSUS(A) numbers 646.4920, 646.54, 646.56, and 646.63 have increased within the meaning of section 201 of this act.

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 injury is being seriously injured. The Commission is to consider, among other economic factors, 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 facts in the present case lead us to the conclusion that the domestic industry producing bolts, nuts, and large screws is experiencing serious injury. U.S. producers' shipments of these articles declined from 1,483 million pounds, valued at $734 million, in 1969 to 1,242 million pounds, valued at $661 million, in 1971. Then, because of rapidly increasing demand for these articles in the U.S. and world markets, shipments of bolts, nuts, and large screws by domestic producers increased moderately, but, nevertheless, at their peak (1974) were only slightly larger than in 1969. In recent months, such shipments

have fallen appreciably; they were about 20 percent smaller in the first 6 months of 1975 than in the corresponding period of 1974. The decline in the domestic industry's shipments during 1969-71 and the limited increase during 1972, 1973, and 1974 occurred at a time when imports were increasing both on an actual and a relative basis. Even during the recession-plagued first 6 months of 1975 when imports declined absolutely, the imported product continued to increase its share of the domestic market.

Throughout most recent years, imported bolts, nuts, and large screws substantially undersold their domestic counterparts in the U.S. market. The margins of underselling in the early 1970's were as great as 25 to 40 percent. Although most of the underselling by imports temporarily ended in 1974 as a result of the strong demand that existed, underselling equal to or greater than that existing earlier has developed in 1975. In the face of such severe price pressures, the domestic industry has been unable to keep its prices in step with rapidly increased costs. Inevitably, such profits as were earned by domestic producers during most recent years have not been adequate to sustain the economic health of the industry. The data available to the Commission indicate that the industry's pretax profits, as a percent of net sales, never attained 6 percent during the years 1969-72, resulting in returns inadequate to support the capital-intensive industry involved here. Although profits generally increased during 1973 and 1974, they have plummeted during the current year. In fact, preliminary data for the third quarter of 1975 show that three of the largest producers in the industry experienced a profit-to-sales ratio of below 3 percent. This level

of financial return calls into question the capability of the industry to replace outmoded equipment and finance expansion.

Other indicators evidence the seriousness of injury to the industry. Inventories of domestic bolts, nuts, and large screws have increased greatly since mid-1974, when a glut of low-priced imports began to accumulate in the warehouses of importers and their distributors. Although the recession was a significant cause of the increase in inventories, the present inventories of imported articles have been a primary factor suppressing the level of prices of the domestic product.

Finally, there has occurred an idling of production facilities within this industry. At least five producing establishments have ceased production--a development which has contributed to the decline in the number of employees engaged in the manufacture of the subject products.

All of the indexes discussed above support the conclusion that the statutory test of serious injury has been met.

Many of the same factors cited above also impel us to conclude that the serious injury already manifested in this industry will continue into the foreseeable future. Shipments by domestic producers during the first half of 1975 declined both absolutely and relative to domestic consumption. Inventories of the domestic product have grown to unprecedented levels, which in turn has led to a slowdown in production and a rise in unemployment in the industry producing bolts, nuts, and large screws.

Given the extent to which excess capacity currently exists both

in the United States and Japanese fastener industries, and given the considerable underselling by imports (margins of 25 to 70 percent) which currently prevails in the U.S. market, it seems readily apparent that, absent any marked and enduring rebound in the economy, the domestic producers of bolts, nuts, and large screws face the prospect of continued, worsening economic hardship.

Substantial cause.--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." Thus, increased imports must be both an "important" cause of the serious injury, or threat thereof, and a cause "not less than any other cause."

In this case it is not mere coincidence that the serious injury suffered by this industry has occurred during a period of sharply rising import penetration. Imports of the subject articles have increased from 21 to 36 percent of domestic consumption in the past 6 years.

The declining share of the U.S. market held by the domestic industry has resulted directly from the severe underselling by imports. That underselling itself has been a substantial cause of the injury described above in that such pricing has adversely affected the prices of the domestic product throughout most recent years.

The underselling by imports which currently exists in U.S. markets has particularly aggravated the condition of the domestic industry during the current period of economic slowdown. The result has been a sharp increase in inventories of the domestic product, which would be significantly less without the acutely depressed level of prices of the imported fasteners. The buildup in inventories in turn has forced the

domestic industry to operate at substantially less than full production. The decline in domestic production has led to a decline in employment in this industry, which is plainly associated with the rising level of imports.

While other factors have contributed to the serious injury of the domestic industry producing bolts, nuts, and large screws, an important cause, not less than any other cause, of such injury is the sharply increased level of imports.

Negative determination with respect to small screws

In contrast to the facts which led us to an affirmative finding relating to the industry producing bolts, nuts, and large screws, we find the evidence pertaining to the industry producing small screws warrants a negative determination. Though in some instances the facts applicable to both industries are similar, certain significant differences require an opposite determination in the case of the industry producing small screws.

First, domestic producers of small screws increased their U.S. shipments at a much faster pace than did the producers of bolts, nuts, and large screws during the period 1969-74. Second, although imports of small screws increased both actually and relative to domestic production during the same period, the increase was neither as regular nor as acute as the increase in imports of bolts, nuts, and large screws. Furthermore, although shipments of the domestic product were significantly smaller in the first six months of 1975 than in the corresponding period of 1974, imports fell to a greater degree. Thus imports accounted for a substantially lesser share of the U.S.

market during the first half of 1975 than in the first half of 1974. In fact, the data show that the importers' share of this market during the first half of this year was roughly the same as it was in 1969, 18 percent. That imports have not substantially increased their share of the market during the period under investigation is due principally to the domestic industry having adjusted to import competition which had already reached significant levels during the 1950's and 1960's.

Lack of serious injury.--In addition to the factors cited above which suggest no real evidence of serious injury to the producers of small screws, other salient indicators also point to an absence of any serious injury.

Prices of small screws produced domestically rose more rapidly during the period 1969-74 than did prices for related metal fabricated products. This favorable price movement enabled the domestic industry producing small screws to realize higher profit ratios than producers of bolts, nuts,and large screws. In recent years, the ratio of pretax profits to sales for the producers of small screws never dropped below 6.5 percent and generally was considerably higher. The industry has been able to increase prices in excess of costs increases and realize greater profits than those of related industries in recent years. Hence, it has generally established a record of economic prosperity.

Finally, the available evidence indicates that more firms entered the industry during the most recent 7-year period than ceased operations and that the average annual number of employees producing small screws increased during that period.

No real threat of serious injury.--Based upon available data, a threat of serious injury to the industry considered here is not imminent. Although shipments of small screws by domestic producers declined during the first six months of 1975, imports fell even more in the face of the general economic recession. Even more important, inventories of the domestic product have declined during 1975, which suggests that there is considerably less downward pressure on prices of small screws than on the prices of bolts, nuts,and large screws.

No finding with respect to Canadian items entered under APTA

We have made no finding with respect to bolts, nuts,and screws of the types covered by this investigation which enter free of duty from Canada as original equipment for motor vehicles, which is provided for by the Automotive Products Trade Act of 1965 (APTA). Imports of such articles, as well as exports of like articles to Canada, are made under the terms of the U.S.-Canadian Automotive Agreement with respect to which a waiver has been granted under the GATT.

Remedy

Although our determination is in the minority, and therefore the Commission is not required to make a recommendation of remedy, we feel it appropriate to state our views on the type of remedy we would have recommended for the Commission's consideration. Section 201(d)(1) of the Trade Act provides:

> The Commission shall report to the President its findings under subsection (b), and the basis therefor and shall include in each report any dissenting or separate views. If the Commission finds with respect

> to any article, as a result of its investigation, the serious injury or threat thereof described in subsection (b), 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,
>
> and shall include such findings or recommendation in its report to the President. The Commission shall furnish to the President a transcript of the hearings and any briefs which were submitted in connection with each investigation.

Furthermore, section 203(a) lists the relief which the President may take in order to insure that there be an "orderly adjustment to new competitive conditions by the industry in question". These remedies are:

> (1) proclaim an increase in, or imposition of, any duty on the article causing or threatening to cause serious injury to such industry;
>
> (2) proclaim a tariff-rate quota on such article;
>
> (3) proclaim a modification of, or imposition of, any quantitative restriction on the import into the United States of such article;
>
> (4) negotiate orderly marketing agreements with foreign countries limiting the export from foreign countries and the import into the United States of such articles; or
>
> (5) take any combination of such actions.

We believe that the relief necessary to remedy the extensive injury to the domestic industry producing bolts, nuts, and large screws is that of an increase in duties with respect to lag screws or bolts, described in TSUS item 646.49; bolts and bolts and their nuts imported in the same shipment as described in TSUS item 646.54; nuts as described in TSUS item 646.56; and cap and other screws having shanks or threads over 0.24 inch in diameter as described in TSUS item 646.63.

Because of the widespread and persistent underselling of the domestic product by imports in this industry--underselling which ranges

from 25 percent to 70 percent--during much of the period examined, including the first 6 months of the current year--the latest period for which data are available--we have determined that a sizeable tariff increase would be necessary to correct the serious injury alluded to above.

Consequently, our proposal was that the duty on all articles subject to our affirmative finding under section 201 be increased to a level of 30 percent ad valorem during the first year that corrective action was taken, such duty to be reduced in equal increments during the succeeding 4 years of a 5-year period. After the fifth year of such action, the applicable rates would return to their present levels. 1/ The table below lays out by TSUS number the details of this remedy.

Bolts, nuts,and screws of iron or steel: Proposed rates of duty necessary to remedy serious injury

(Rate in percent ad valorem,except where otherwise noted)

TSUS item	Present rate	Proposed full incremental rate increase	Proposed rate in effect-- Year 1	Year 2	Year 3	Year 4	Year 5
646.49 1/	12.5	17.5	30	25	20	15	12.5
646.54 2/	0.2¢/lb.3/	30	30	25	20	15	10
646.56 4/	0.1¢/lb.3/	30	30	25	20	15	10
646.63 5/	9.5	20.5	30	25	20	15	10

1/ Lag screws or bolts only.
2/ Bolts and bolts and their nuts imported in the same shipment.
3/ Ad valorem equivalent rate is negligible and is consequently disregarded in designing the remedy. However, if such remedy proposal were implemented, the actual rate of duty applicable to these articles would be a compound rate of duty.
4/ Nuts.
5/ Cap and other screws having shanks or threads over 0.24 inch in diameter.

1/ In the case of lag screws or bolts (646.4920) the current rate of duty would be in effect during the fifth year because the proposed incremental reduction would be less than the existing duty.

We believe this rate increase is not only necessary to remedy the serious injury to the industry concerned but is also consistent with the remedial authority granted the President under this act.

In our view a significant increase in the duty during the first year of a 5-year period of relief would allow the domestic industry to compete more effectively against the intense import competition without unduly obstructing the flow of imports during periods of strong demand. A 5-year period of adjustment, moreover, would give the industry sufficient time to devise new marketing strategies and perhaps to move into fastener markets which are not as heavily import-impacted as those it is currently serving.

# # #

INFORMATION OBTAINED IN THE INVESTIGATION

Introduction

Following receipt on May 22, 1975, of a petition filed by Russell, Burdsall & Ward, Inc., the Industrial Fasteners Institute, and the Cap Screw and Special Threaded Products Bureau, the United States International Trade Commission, on June 13, 1975, instituted an investigation under section 201 of the Trade Act of 1974 to determine whether wood screws and bolts, nuts, and screws (including bolts and their nuts imported in the same shipment), all the foregoing of iron or steel, provided for in items 646.49, 646.54, 646.56, 646.58, 646.60, 646.63, and 646.79 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 threat thereof, to the domestic industry producing an article like or directly competitive with the imported article. A public hearing in connection with the investigation was conducted from September 3 through September 12, 1975, in the Commission's hearing room in Washington, D.C.

Public notice of the investigation and hearing were duly given by publishing the original notice in the Federal Register of June 26, 1975 (40 F.R. 27079). On August 6, 1975, the Commission issued a public notice rescheduling the date of the hearing from August 19, 1975, to September 3, 1975. Notice of the rescheduled hearing was published in the Federal Register of August 11, 1975 (40 F.R. 33706). Copies of the notices were also posted at the U.S. International Trade Commission's offices in Washington, D.C., and in New York City.

The petitioners allege that the increase in imports of bolts, nuts, and screws of iron or steel is far and away the most important cause of the serious injury being suffered by the domestic producers of like or directly competitive articles. The petitioners believe that the imposition for a period of 5 years of an absolute import quota tied to the 1972 level of imports is necessary to remedy the alleged injury.

The Commission has not conducted an investigation concerning fasteners since the 1950's. From 1951 through 1956 the Commission instituted four escape-clause investigations on wood screws of iron or steel under section 7 of the Trade Agreements Extension Act of 1951. The first two investigations resulted in a majority of the Commission finding no injury; the third investigation resulted in an evenly divided Commission, three Commissioners finding injury and recommending the establishment of a quota, and the other three Commissioners finding no injury. This escape-clause report was sent to the President in October 1954, and on December 23, 1954, the President reported to the Senate Finance Committee and the House Ways and Means Committee that no injury had been shown to his satisfaction and that he was taking no action to impose additional import restrictions. The fourth escape-clause investigation was instituted in 1956 and subsequently canceled by the Commission upon request of the domestic industry.

The information contained in this report was obtained from a variety of sources: Domestic manufacturers, foreign manufacturers, importers, distributors, and end users of industrial fasteners; trade associations; the U.S. Customs Service; the U.S. Department of Commerce; Dun & Bradstreet, Inc.; and the Commission's files.

Description and Uses

Bolts, nuts, and screws, commonly called industrial fasteners, have historically been classified by major product families for purposes of customs treatment, standardization, and convenience. These product families include bolts, nuts, and screws. The one feature common to all these fasteners is the presence of external threads on the bolts and screws, and internal threads in the nuts. Within each family, subgroupings are made according to head style, thread form, application, and other characteristics. Despite their wide use, the nomenclature applicable to bolts, nuts, and screws is not universally agreed upon. Certain problems respecting nomenclature are discussed in appendix C.

Description

Bolts.--Bolts are generally headed at one end and threaded at the other. They are usually tightened or released by turning a nut. The most common bolt subgroupings are mine roof bolts, hex and square bolts, round head bolts, high-strength structural bolts, bent bolts, and "other" bolts.

Nuts.--Nuts are perforated metal blocks, with internal, or female, threads; they are used with bolts and some screws. The most common nut subgroupings are hex and square nuts, locknuts, and "other" nuts.

Screws.--Screws are usually subdivided by the trade into two size groups--large screws and small screws. This distinction has arisen because different production techniques are required to produce screws in the two size groups.

The most common small screw subgroupings are wood screws, machine screws, and tapping and "other" screws under 1/4 inch in diameter. Small screws are usually tightened or released by torquing their heads.

The most common large screw subgroupings are lag screws (or lag bolts), and cap (including socket) and "other" screws 1/4 inch and over in diameter. Large screws, like bolts, are often tightened or released by turning a nut. Lag screws are an exception in that they are tightened or released by torquing their heads.

Manufacturing process

Bolts and screws.--Nearly all bolts and screws under 1 inch in diameter are cold forged; cold forging is a process that conserves energy. Hot forging is usually required in the manufacture of bolts and screws 1 inch and over in diameter. Today, nearly all screw threads are rolled rather than cut by squeezing a bolt or screw between reciprocating or rotating dies. Screw machines were replaced by cold-forging equipment in the 1920's and 1930's for the mass production of screws.

Nuts.--Nearly all nut blanks are produced in one of the following ways: cold forming, hot forming, and cold punching. The most common method is cold forming, where the machinery cuts round wire to proper length, upsets the wire into a hexagon nut, and punches the hole. The hot-forming method is similar to cold forming except that the raw material is heated to forging temperature before being fed into the machine. In cold punching, rectangular bar stock is fed into the machine, and in successive steps a hole is punched and countersunk, and the bar is sheared, chamfered, and trimmed.

Regardless of the method employed to produce the nut blank, the tapping operation to produce the thread is generally the same. Nuts 3/4 inch in diameter and smaller are tapped in automatic machines, while larger nuts are tapped in hand¬fed machines.

Machinery.¬¬The machinery (cold headers, trimmers, threaders, boltmakers, nut formers, nut tappers, and so forth) employed by the domestic fastener manufacturers is highly specialized and can only be used in the production of fasteners. Only two U.S. firms, National Machinery Co., Tiffin, Ohio, and Waterbury Farrel, a Textron company, Cheshire, Conn., manufacture the highly specialized forging equipment that is the heart of the fastener business.

Secondary operations.¬¬Fastener manufacturers perform a variety of secondary operations necessary to meet special user requirements concerning dimensional accuracy and surface finish. Some secondary operations are drilling, slotting, trimming, grinding, turning, point¬ing, polishing, and plating.

Heat treatment.¬¬Manufacturers employ a number of heating and cooling processes to insure the appropriate physical properties in the finished fastener. Some heat¬treating processes include quench¬ing, tempering, full annealing, process annealing, carburizing, and dry cyaniding.

Products that compete with ferrous bolts, nuts, and screws

Many joining techniques compete with ferrous bolts, nuts, and screws in the product¬design marketplace. Despite this competition,

no major changes appear to have occurred during the last decade in the relative importance of ferrous threaded fasteners vis-a-vis all other fastening techniques. This static condition suggests that most joining applications have one "least cost" solution and that the relative number of different joining applications has remained about the same. A summary of competing joining techniques follows.

Nonferrous threaded fasteners.--Fasteners are produced from nonferrous metals when specified functional requirements of the fasteners go beyond the capabilities of the low-cost ferrous product. Nonferrous fasteners are generally priced three to four times as high as ferrous bolts, nuts, and screws.

Copper alloy fasteners are strong, resilient, immune to rust, and easily formed. Nickel alloy fasteners are immune to discoloration and corrosion and retain their strength even at high temperatures. Aluminum alloy fasteners have a high strength-to-weight ratio, are easily machined, and resist both atmospheric and chemical corrosion.

Rivets.--A rivet is a one-piece device used for permanently fastening a joint together. In contrast to threaded fasteners, rivets are destroyed if removed after fastening. Although rivets are usually less expensive on a per piece basis than threaded fasteners, the tensile strength of rivets is also lower than that of threaded fasteners, and total cost must be evaluated on a joint-by-joint basis.

Other mechanical fasteners.--Literally thousands of mechanical fasteners exist that join, couple, or assemble multiple components. A representative sample of these products might include cotter pins,

cotters, self¬clinching fasteners, retaining rings, spring clips, and quick¬operating fasteners.

Fusion joining processes.¬¬The three categories of fusion joining processes are welding, brazing, and soldering, all of which require the presence of heat during the fastening process. These joining tech¬niques usually require a large input of highly skilled labor, expensive capital equipment, and energy.

Pressure¬sensitive adhesive tape.¬¬The three types of pressure¬sensitive tape are transfer tape with an adhesive on only one side, double¬coated tape, and tapes consisting of two layers of adhesive separated by a foam barrier. Most tapes use an acrylic¬tape adhesive.

Per joint, tape costs about the same as threaded fasteners. Savings are the result of not having to put holes in metal, a reduc¬tion in quality control, and the need for less skilled labor. This technique is most apt to replace threaded fasteners in the future in certain joining applications.

U.S. producers

Approximately 325 U.S. establishments produce ferrous bolts, nuts, and screws. These producers account for 56 percent by value, and more than 80 percent by weight, of the total shipments of SIC industry 3452, titled bolts, nuts, screws, rivets, and washers. Since 1967, the number of U.S. producers has remained about the same, although some long¬established firms, such as the Bolt and Nut Division of Republic Steel Corp. and National Machine Products of Standard Pressed Steel, have ceased operations.

Domestic establishments tend to specialize in one of four areas: mine roof bolts, aerospace fasteners, small screws, and other threaded fastener products including bolts (except mine roof bolts), nuts, and large screws. The production of these products require different labor skills, productive facilities, and technology.

Eleven domestic firms produce mine roof bolts¬¬four of which, U.S. Steel Corp., Bethlehem Steel Corp., Youngstown Sheet & Tube Co., and CF & I Steel Corp., are integrated steel producers making mine roof bolts for their captive coal mines. Of the 11 firms, only Bethlehem Steel Corp. fabricates other fastener products.

About 35 domestic establishments, primarily in California, produce aerospace fasteners. The U.S. aerospace and defense industries use lightweight fasteners in the assembly of commercial and military aircraft, missiles, space vehicles, and so forth. Most aerospace fasteners are either made from or alloyed with titanium, a very expensive, lightweight metal. Based on responses to Commission questionnaires, most areospace fasteners appear to be nonferrous and therefore outside the scope of this investigation. Those aerospace fasteners which were reported by domestic producers as being ferrous are estimated to account for no more than 1 percent of the quantity of total domestic shipments of all ferrous fasteners in any given year.

About 100 domestic establishments tend to specialize in the pro¬duction of small screws, including wood screws, machine screws, tapping and "other" screws under 1/4 inch in diameter. These manufacturers produce both high¬volume, commodity¬type fasteners and low¬volume or limited¬purpose fasteners.

Approximately 180 establishments tend to specialize in the production of bolts (except mine roof bolts), nuts, and large screws. These establishments produce a wide variety of fastener products, ranging from high-volume, commodity-type fasteners, such as hex and square nuts, round head bolts, and cap screws, to low-volume or limited-purpose fasteners.

Geographic location of the U.S. fastener producers is discussed in the section entitled "U.S. producers' shipments."

Raw materials.--U.S. fastener producers are major consumers of hot-rolled carbon steel wire rod, the staple raw material in the production of ferrous fasteners. U.S. producers also use, but to a lesser extent, stainless steel and other alloy steel wire rod. Some producers, and particularly those specialized in the production of mine roof bolts, fabricate steel in the form of bar stock rather than wire rod. Producers of aerospace fasteners use titanium, a lightweight, exotic metal, in the production of some fasteners.

The following table shows the domestic and foreign steel purchased by 24 major U.S. producers for use in the production of fasteners. The ratio of foreign steel to all steel purchased annually by these firms from 1969 to 1974 ranged from 13 to 19 percent. The same ratio for January-June 1974 and January-June 1975 was 14 and 24 percent, respectively. The large increase during January-June 1975 represents the fulfillment of foreign contracts signed during the steel shortage, well before the current downtrend in the fastener market.

Raw material: U.S. and foreign steel purchased by 24 major U.S. producers for use in the production of fasteners, 1969-74, January-June 1974, and January-June 1975

(In thousands of tons)

Period	Domestic	Foreign	Total
1969	609	88	697
1970	549	128	677
1971	478	104	582
1972	581	127	708
1973	670	124	731
1974	753	135	888
January-June--			
1974	400	64	464
1975	213	69	282

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

Based on fieldwork, public testimony, and correspondence with smaller producers, the dependence of all U.S. fastener producers on foreign raw material, as expressed in the table above, appears to be significantly understated; that is, it appears that many small producers consume, proportionately, much more foreign steel than do the 24 largest producers.

Concentration.--From 1969 to 1974 the concentration ratios in the product areas of nuts, large screws, and small screws declined, whereas the concentration ratios for bolts increased somewhat. The following table summarizes the percentage of domestic shipments accounted for by the four and eight largest producers of the particular product for the years 1969 and 1974.

Bolts, nuts, and screws of iron or steel: Share of domestic shipments accounted for by 4 and 8 largest producers, by product areas, 1969 and 1974

(In percentages)

Product area and year	Four largest producers	Eight largest producers
Bolts:		
1969	28	38
1974	31	40
Nuts:		
1969	55	72
1974	42	61
Large screws:		
1969	41	62
1974	40	60
Small screws:		
1969	40	59
1974	37	54

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

The closing of the National Machine Products plant in Utica, Mich., seems to be a major reason for the sharp decline in the concentration ratios for nuts. This plant had been the largest domestic producer of nuts prior to its closing.

The entry of new firms into the small-screw market and the growth of many medium and smaller sized producers may account for the significant decline in the concentration ratios for small screws.

The changes in the concentration ratios for bolts and large screws appear too small to suggest any significant structural changes during the period under consideration.

In 1931 the U.S. District Court for the Southern District of New York found the Bolt, Nut and Rivet Manufacturers Association and its members to have engaged in combination and conspiracy in restraint of interstate commerce and trade in violation of the Sherman Antitrust Act. The court ordered that the association be dissolved (although it expressly allowed defendants to form another association) and "perpetually" enjoined defendants and other manufacturers of bolts, nuts, or rivets from, among other things, concertedly fixing prices. The injunction is still in effect. Russell, Burdsall & Ward, Inc., and the Lamson & Sessions Co. were among the 52 named defendants. See United States v. Bolt, Nut & Rivet Mfr's Ass'n, et al., Equity No. 58-383 (S.D. N.Y., Mar. 17, 1931).

Kaynar Manufacturing Co., Inc., now a division of Microdot, Inc., and several other companies engaged in the manufacturing of aerospace fasteners were defendants in 1963 to a criminal action brought by the U.S. Department of Justice. The Government contended that the codefendants had conspired to fix prices in violation of section 1 of the Sherman Act. Following pleas of nolo contendere (no contest) in September 1963, the defendants were found guilty and fined.

Channels of distribution.--In 1974, U.S. fastener producers sold about 28 percent of total domestic shipments to distributors and about 72 percent to original-equipment manufacturers (OEM) such as auto, appliance, and farm equipment manufacturers (table 32). Sales to OEM accounts consist of both high-volume, commodity-type fasteners and

low¬volume or limited¬purpose fasteners. Many U.S. producers also market some of their high¬volume, commodity¬type products through distributors, which number about 4,000 nationwide. Distributors are often classified according to their product mix and types of customers. The four types of distributors are the fastener specialist, the auto supply wholesaler, the industrial (or mill) supply wholesaler, and the hardware wholesaler. Most distributors are independent, localized business establishments, although some are wholly owned subsidiaries of domestic fastener manu¬facturers.

Captive shipments.¬A few large auto, farm equipment, and steel producers maintain captive fastener production for use in the assembly of final products. This fastener production generally accounts for about 5 to 6 percent of total domestic shipments and usually consists of bolts, nuts, and large screws (table 16). In addition, some large industrial conglomerates have recently acquired fastener concerns to supplement their metalworking operations.

Foreign affiliates.¬The largest U.S. producers have foreign affiliates located primarily in Western Europe and Canada, and to a lesser extent in Mexico, Brazil, Argentina, Japan, Australia, Taiwan, and South Korea. At least one major U.S. producer derives 30 percent of net income from foreign operations.

Importers

Approximately 100 firms presently import ferrous bolts, nuts, and screws into the United States. These importers tend to handle the higher volume, commodity¬type products often called "standard" fasten¬ers. Importers generally fall into one of the following categories.

Importer¬trading companies.¬¬Importer¬trading companies import about 20 percent of all imported fasteners into the United States for sale to domestic fastener manufacturers and large distributors. This type of importer rarely sells to OEM customers. The importer¬trading company typically has no warehouse facilities and deals only in high¬volume trans¬actions that require long lead times.

Many importer¬trading companies are American branches of the large Japanese general trading companies, such as Mitsui & Co., Inc.; C. Itoh & Co., Inc.; Irimaru Co., Inc.; and Okura & Co., Inc. An American¬owned importer¬trading company is Allied International, Rye, N.Y.

Importer¬warehouses.¬¬Importer¬warehouses import about 55 percent of all imported fasteners into the United States for sale to domestic fastener manufacturers, large distributors, and smaller jobbers, such as industrial and automotive supply companies. As a general rule this type of importer does not sell directly to OEM customers. Because these firms, in contrast to trading companies, stock merchandise, they provide faster delivery and fill smaller customers' orders.

The largest importer¬warehouses are Heads & Threads Co., Chicago, Ill., and Reynolds Fastener, Greenvale, N.Y.

Importer¬distributors.¬¬Importer¬distributors import about 10 percent of all imported fasteners into the United States. The great majority of these imports are sourced from Canada.

The importer¬distributor differs only slightly from the other fas¬tener distributors that source all their merchandise from domestic producers, importer¬trading companies, and importer¬warehouses. The importer¬distributor, like any fastener distributor, is a localized, sales¬oriented middleman, usually serving a large number of accounts.

Importer¬end users.¬¬Importer¬end users import about 10 percent of all imported fasteners into the United States for use in the manufacture or maintenance of other finished products. The largest importer¬end users are the automakers and General Electric Co.

Importer¬producers.¬¬Importer¬producers import directly about 5 percent of all imported fasteners into the United States. In addition, many U.S. producers purchase foreign¬made fasteners from other importers. In 1974 about 18 percent of all shipments of imported fasteners were sold to or imported by domestic fastener manufacturers (table 33).

The Question of Increased Imports

U.S. imports of bolts, nuts, and screws of iron or steel enter the United States under one of seven individual TSUS item numbers: 646.49, 646.54, 646.56, 646.58, 646.60, 646.63, and 646.79. Imports entering under these TSUS item numbers cover a very broad range of fastener products, which are sourced from nearly all industrialized nations of the world.

In order to put the vast amount of import data in perspective, the following table was developed. This table shows the value of U.S. imports of bolts, nuts, and screws of iron or steel, by type, in 1974. The purpose of this table is simply to orient the reader to the relative importance of the particular types of fasteners herein involved.

Bolts, nuts, and screws of iron and steel: U.S. imports, by type, 1974

(In millions of dollars)

Item	Value	Item	Value
Bolts:		Large screws:	
Mine roof	0	Cap	97
Square and hex	26	Socket	3
Round head	27	Lag	3
High strength structural	29	Other	10
Bent	3	Total	113
Other	5		
Total	90	Small screws:	
		Machine	24
Nuts:		Tapping	30
Hex and square	143	Wood	7
Locknuts	25	Other	4
Other	18	Total	65
Total	186	Grand total	454

Source: Compiled from official statistics of the U.S. Department of Commerce and from responses to U.S. International Trade Commission questionnaires.

U.S. imports

Bolts, nuts, and screws.--Annual U.S. imports of bolts, nuts, and screws of iron or steel ranged between 450 million and 500 million pounds in 1969-71, increased to 666 million pounds in 1973, and jumped to 911 million pounds in 1974 (table 1). During the last decade the upward trend in annual imports has experienced only one downturn, and that occurred in 1971, when imports dropped in a delayed response to the 1970 general recession. Imports in January-June 1975 totaled 316 million pounds, 21 percent less than in the corresponding period of 1974.

The value of imports of ferrous bolts, nuts, and screws increased from $86 million in 1969 to $109 million in 1970, declined to $99 million in 1971, recovered to $139 million in 1972, and increased rapidly to $208 million in 1973. The value of imports jumped tremendously in 1974, to $454 million, representing an increase of 118 percent over the value in the earlier peak year of 1973. The value of imports in January-June 1975 totaled $146 million, 21 percent less than the value in January-June 1974. (Graphic analysis of detailed monthly data on the quantity, value, and unit value of imported fasteners appears in figs. 1, 2, and 3 in appendix B).

The vast majority of imported ferrous fasteners are fabricated from carbon steel (table 2). Imports of carbon, stainless, and alloy steel fasteners in 1974 accounted for 97, 1, and 2 percent, respectively, by weight, of all ferrous fastener imports, and for 91, 4, and 5 percent, respectively, by value, of all such imports.

Imported fasteners are distributed throughout the United States. The ports of New York, Los Angeles, Baltimore, Chicago, New Orleans, and Houston process the bulk of all U.S. fastener imports. Canadian fasteners, used primarily in the automotive industry, enter the United States through the port of Detroit.

Since 1970 Japan has accounted for 60 to 70 percent of all imported fasteners by value (based on data in table 3). Canada has accounted for 12 to 19 percent, by value, of all U.S. imports during the same period. Ireland, West Germany, the United Kingdom, Spain, Hong Kong, and the Netherlands have each accounted for 1 to 4 percent of all U.S. imports since 1970. Since the imposition of countervailing duties (June 1969) on certain fasteners from Italy, the Italian share of all U.S. imports has declined from 8 percent in 1969 to 2 percent in 1974. During the last 2 years India and Taiwan have also become substantial U.S. suppliers of fasteners.

Bolts.--Bolts--and bolts and their nuts imported together in the same shipment--are dutiable under TSUS item 646.54 at 0.2 cent per pound, reflecting a 60-percent reduction negotiated during the Kennedy Round. The ad valorem equivalent rate of duty is 0.5 percent based on 1974 trade statistics. The rate of duty was 1.0 cent per pound in the Tariff Act of 1930.

On October 30, 1968, the Commissioner of Customs announced that information had been received pursuant to section 16.24(b) of the Customs Regulations which indicates that certain rebates or refunds granted by Italy on the exportation of certain steel products constitute the

payment of a bounty or grant, directly or indirectly, within the meaning of section 303 of the Tariff Act of 1930, as amended. After consideration of all information received in the investigation pursuant to section 16.24(d), the Customs Bureau imposed a countervailing duty of 13.55 lire per kilo (about 0.9 cent per pound in 1974) on bolts of iron or steel.

U.S. imports of bolts increased from 123 million pounds in 1969 to 226 million pounds in 1974 (table 1). Imports in the first half of 1975 totalled 75 million pounds, 17 percent lower than the corresponding period of 1974.

The value of imports of bolts has increased from $17 million in 1969 to $90 million in 1974. The value of imports during January-June 1975 was $31 million, slightly higher than in the corresponding period of 1974. (Graphic analysis of detailed monthly data on the quantity and value of imported bolts, TSUS item 646.54, appears in figs. 4 and 5.)

Mine roof bolts.--The quantity and value of U.S. imports of mine roof bolts are very small. The only known imports of this product come from an integrated Canadian steel mill which uses these bolts in its own coal mines in the United States.

Hex; square; round head; and high-strength structural bolts.--U.S. imports of hex, square, round head, and high-strength structural bolts usually consist of high-volume commodity-type items. In general, imports of hex, square, and round head bolts have increased since 1969 (table 4). Imports of hex and square bolts increased from 65 million pounds in 1969 to 77 million pounds in 1974. Imports of hex and square bolts totaled 30 million pounds during January-June 1975, representing

a decline of 4 percent from the quantity imported in the corresponding period in 1974. Imports of round head bolts increased from 42 million pounds in 1969 to 47 million in 1970, then fell to an average of 41 million pounds in 1971 and 1972. Imports increased in 1973 and 1974, reaching a high of 65 million pounds in the latter year. Imports of round head bolts declined to 22 million pounds in January¬June 1975, 20 percent lower than in January¬June 1974.

U.S. imports of high¬strength structural bolts increased regu¬larly from 4 million pounds in 1969 to 16 million pounds in 1973 and then jumped tremendously to 65 million pounds in 1974. Imports of high¬strength structural bolts totaled 19 million pounds in January¬June 1975, 9 percent lower than in January¬June 1974.

Nuts.¬¬Nuts are dutiable under TSUS item 646.56 at 0.1 cent per pound, reflecting a 67¬percent reduction negotiated during the Kennedy Round. The ad valorem equivalent rate of duty is 0.2 percent based on 1974 trade statistics. The rate of duty was 0.6 cent per pound in the Tariff Act of 1930.

The Customs Bureau has imposed a countervailing duty of 13.55 lire per kilo (about 0.9 cent per pound in 1974) on nuts of iron or steel and a duty of 12.73 lire per kilo (also 0.9 cent per pound) on galvanized nuts from Italy. Dates and regulations concerning this action are the same as those described on page 18.

U.S. imports of nuts increased from 166 million pounds in 1969 to 302 million pounds in 1974 (table 1). Imports in January¬June

1975 totaled 114 million pounds, 15 percent less than in January¬June 1974.

The value of imports of nuts has increased from $34 million in 1969 to $186 million in 1974. The value of imports during January¬June 1975 totaled $57 million, 26 percent less than in the correspond¬ing period of 1974. (Graphic analysis of detailed monthly data on the quantity and value of imported nuts, TSUS item 646.56, appears in figs. 6 and 7.)

Hex and square nuts.¬¬U.S. imports of the high¬volume, commodity¬type hex and square nuts increased from 153 million pounds in 1969 to 274 million pounds in 1974 (table 5). Imports in January¬June 1975 were 107 million pounds, 13 percent less than in the corre¬sponding period of 1974.

Locknuts.¬¬U.S. imports of locknuts increased from 7 million pounds in 1969 to 19 million pounds in 1974. Imports dropped sharply during January¬June 1975 to 3 million pounds, 56 percent less than in January¬June 1974.

Screws.¬¬Screws are dutiable under one of four TSUS item numbers, depending on such factors as application, thread form, and shank size. On August 7, 1975, Russell, Burdsall & Ward filed a countervailing duty petition with the U.S. Treasury Department alleging that certain rebates or refunds granted by Italy on the exportation of screws of iron or steel constitute the payment of a bounty or grant, directly or indirectly, within the meaning of section 303 of the Tariff Act

of 1930, as amended. On September 16, 1975, the U.S. Treasury Department instituted an investigation into this matter.

U.S. imports of all screws increased from 163 million pounds in 1969 to 383 million pounds in 1974 (table 1). Correspondingly, the value of imports of screws has increased from $36 million in 1969 to $178 million in 1974.

Large screws.--U.S. imports of large screws--cap (including socket) and "other" screws 1/4 inch and over in diameter and lag screws (or bolts)--have increased from 83 million pounds in 1969 to 248 million pounds in 1974 (table 6). Imports totaled 95 million pounds in January-June 1975, 13 percent less than in January-June 1974.

Other screws having shanks or threads over 0.24 inch in diameter are dutiable under TSUS item 646.63 at 9.5 percent ad valorem, reflecting a 50-percent reduction negotiated during the Kennedy Round. The rate of duty was 45 percent ad valorem in the Tariff Act of 1930. Most screws entering the United States under this provision are commonly called cap screws.

U.S. imports of cap screws 1/4 inch and over in diameter (not including socket screws) tend to be low carbon, high-volume, commodity-type products. Imports of cap screws have increased rapidly from 57 million pounds in 1969 to 217 million pounds in 1974. Imports in January-June 1975 totaled 86 million pounds, 9 percent less than in January-June 1974.

Lag screws (or bolts) are dutiable under TSUS item 646.49, as wood screws of iron or steel. Lag screws are specifically provided for in the statistical annotation TSUSA item 646.4920.

U.S. imports of lag screws and bolts have increased from about 7 million pounds in 1969 to more than 15 million pounds in 1973 (table 6). Imports of lag screws and bolts dropped to about 10 million pounds in 1974 and continued to decline in January¬June 1975.

Small screws.¬¬U.S. imports of small screws¬¬machine screws, wood screws, and tapping and "other" screws under 1/4 inch in diameter¬¬ have increased from 80 million pounds in 1969 to 134 million in 1974 (table 7). Imports declined sharply in January¬June 1975 to 32 million pounds, 52 percent less than in the corresponding period of 1974.

Machine screws 0.375 inch or more in length and 0.125 inch or more in diameter are dutiable under TSUS item 646.58 at 0.5 cent per pound. The ad valorem equivalent rate of duty is 1.2 percent based on 1974 trade statistics. The rate of duty was 1.0 cent per pound in the Tariff Act of 1930. The rate of duty on machine screws of certain dimensions was not reduced during the Kennedy Round.

U.S. imports of machine screws moved irregularly higher from 40 million pounds in 1969 to 58 million pounds in 1974 (table 7). Imports declined sharply during January¬June 1975 to 12 million pounds, 56 percent less than in the corresponding period of 1974.

Wood screws are dutiable under TSUS item 646.49 at 12.5 percent ad valorem. This provision also includes lag screws (or bolts). The rate of duty was 25 percent ad valorem in the Tariff Act of 1930. The rate of duty on wood screws was not reduced during the Kennedy Round.

U.S. imports of wood screws (not including lag screws) declined irregularly from 17 million pounds in 1969 to 16.5 million pounds in 1974 (table 7). Imports declined sharply during January¬June 1975

to 5.4 million pounds, 40 percent less than in January¬June 1974. In contrast to its position with reference to other screw categories, Japan is no longer the dominant U.S. supplier of wood screws. In 1974, Hong Kong, Taiwan, and India accounted for more than 60 percent of all U.S. imports of wood screws.

Other screws having shanks or threads not over 0.24 inch in diameter are dutiable under TSUS 646.60 at 11 percent ad valorem, reflecting a 49 percent reduction negotiated during the Kennedy Round. The rate of duty was 45 percent ad valorem in the Tariff Act of 1930. Most screws entering the United States under this provision are commonly called tapping screws.

U.S. imports of tapping screws under 1/4 inch in diameter have increased steadily from 19 million pounds in 1969 to 53 million pounds in 1974 (table 7). Imports declined sharply during January¬June 1975 to 13 million pounds, 53 percent less than in January¬June 1974.

U.S. imports of bolts, nuts, wood screws, machine screws, cap screws, and all other screws are presented, by country of origin, in tables 8, 9, 10, 11, 12, and 13, respectively. (Graphic analysis of detailed monthly data on quantity and value of imported screws, TSUS items 646.49, 646.58, 646.60, and 646.63 appears in figs. 8, 9, 10, 11, 12, 13, 14, and 15.)

Canadian original motor¬vehicle equipment (fasteners).¬¬Canadian bolts, nuts, screws, rivets, studs, washers, and other fastener products of base metal for use as original motor¬vehicle equipment enter the United States duty free under TSUS item 646.79, in accordance with the Automotive Products Trade Act of 1965. According to U.S. customs

officials, by far the greater part of these imports (more than 95 percent) consist of bolts, nuts, and cap screws of iron or steel. The value of imports entering under this provision has been added to the specific product categories (bolts, nuts, and cap screws) previously discussed.

The total value of all fastener imports entering under this provision increased from $5.5 million in 1969 to $18.1 million in 1974 (table 14). The value of imports during January-June 1975 was $6.9 million, 20 percent less than in the corresponding period of 1974. Fasteners entering under TSUS item 646.79 accounted for about 9 percent in 1973 and 4 percent in 1974, by value, of all U.S. imports covered by investigation No. TA-201-2. (Graphic analysis of detailed monthly data on the value of imported Canadian fasteners for use as original motor-vehicle equipment appears in fig. 16.)

The ratio of U.S. imports to domestic production

The ratio of U.S. imports of bolts, nuts, and screws to domestic production of same, which is shown in the following table, increased annually from 19.6 percent in 1969 to 35.5 percent in 1974. The ratio of imports to production during January-June 1975 was 28.4 percent, down from 30.7 percent in the corresponding period in 1974.

Bolts, nuts, and screws of iron or steel: Ratio of imports for consumption to U.S. production, by item, 1969-74, January-June 1974, and January-June 1975 1/

(In percentages)

Item	1969	1970	1971	1972	1973	1974	January-June	
							1974	1975
Bolts	11.8	12.1	13.9	15.6	15.9	19.2	15.2	13.3
Nuts	49.3	56.3	63.1	62.5	77.1	95.1	82.1	82.1
Screws:								
Large	15.2	19.1	18.9	22.6	29.4	42.2	36.2	36.0
Small	21.2	26.8	21.3	23.9	26.1	28.0	27.1	21.8
Total screws	17.7	22.3	19.9	23.1	27.9	35.8	32.1	30.9
Total, all items	19.6	22.4	22.7	25.2	28.4	35.5	30.7	28.4

1/ The ratio of imports for consumption to U.S. production is based on quantity.

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

The ratio of U.S. imports of bolts to domestic production of the same also increased annually, rising from 11.8 percent in 1969 to 19.2 percent in 1974. The ratio of imports to production during January-June 1975 was 13.3 percent, down from 15.2 percent recorded for January-June 1974.

U.S. imports of nuts as a percent of domestic production increased from 49.3 percent in 1969 to 63.1 percent in 1971 and then declined slightly to 62.5 percent in 1972. In 1974, when U.S. imports almost equaled domestic production, the ratio of imports to production increased to 95.1 percent. The ratio of imports to production in January-June 1975 was 82.1 percent, unchanged from the ratio that existed in January-June 1974.

U.S. imports of all types of screws as a percent of U.S. production increased from 17.7 percent in 1969 to 22.3 percent in 1970 and then declined to 19.9 percent in 1971. During 1972-74, the annual ratio of imports to production increased from 23.1 percent to 35.8 percent. The ratio of imports to production during January-June 1975 was 30.9 percent, down slightly from the 32.1 percent recorded for January-June 1974.

The Japanese Industry

All industrial and most developing nations have established a fastener industry. Japan is the second largest producer of fasteners in the world, following the United States.

The Japanese industry employs about 50,000 to 60,000 workers and consists of about 1,400 firms, 300 of which produce fasteners exclusively for the U.S. market.

Japanese production of fasteners has grown tremendously since the late 1950's. In 1969-73, the most recent 5-year period for which data are available, Japanese production grew by about 75 percent.

The data in the table below give the reader the relationship between Japanese production, exports, and imports. Inasmuch as the data are converted from yen to dollars, the rate of increase for each set of data is greatly overstated for the years 1972 and 1973 because of the rapid appreciation of the yen vis-a-vis the dollar and because of the steep inflation in Japan.

As a share of production, Japanese exports of fasteners increased from 17 percent in 1969 to 21 percent in 1973, with the category of

"nuts and bolts" being the biggest factor in the increase. Roughly two-thirds of annual Japanese exports are believed to have gone to the United States.

Fasteners: Japanese production, exports, imports and apparent consumption, by type, 1969-73

(In millions of dollars) 1/

Year and item	Production	Exports	Imports	Apparent consumption	Ratio (in percent) of -- Exports/ Production	Ratio (in percent) of -- Imports/ Consumption
1969:						
Bolts	246.2	56.9	3.0	299.2	16	1
Nuts	102.3					
Machine screws	102.4	18.6	0.9	86.3	18	1
Wood screws	7.4	3.3	-	4.4	45	0
Total	457.6	78.7	3.9	389.9	17	1
1970:						
Bolts	279.2	66.2	3.7	328.5	17	1
Nuts	111.9					
Machine screws	115.9	23.1	1.3	94.2	20	1
Wood screws	8.2	4.2	-	4.2	51	0
Total	515.3	93.5	5.0	425.9	18	1
1971:						
Bolts	304.4	73.7	3.3	347.0	18	1
Nuts	112.1					
Machine screws	118.4	20.3	0.9	99.3	17	1
Wood screws	8.7	4.4	-	4.4	51	0
Total	543.7	98.3	4.2	450.8	18	1
1972:						
Bolts	385.8	94.5	3.8	437.0	18	1
Nuts	137.9					
Machine screws	153.9	32.1	1.1	125.0	21	1
Wood screws	11.3	6.2	-	5.5	55	0
Total	688.9	132.7	4.8	567.5	19	1
1973:						
Bolts	571.9	164.9	5.7	674.5	21	1
Nuts	234.3					
Machine screws	238.5	51.5	1.3	194.4	22	1
Wood screws	17.9	8.0	-	10.1	45	0
Total	1,058.9	224.4	7.0	879.0	21	1

1/ Because of the effects of revaluation and inflation during 1972 and 1973, the rate of increase during 1972 and 1973 overstates the actual rates of increase.

Source: Fastener Institute of Japan.

The Question of Serious Injury to the Domestic Industry

U.S. producers' shipments

Bolts, nuts and screws.--Annual U.S. shipments of bolts, nuts, and screws of iron or steel declined from 2.3 billion pounds in 1969 to 2.0 billion pounds in 1971 and then increased annually, to 2.5 billion pounds in 1974 (table 1). Shipments during January-June 1975 amounted to 1.1 billion pounds, 20 percent less than in the corresponding period of 1974. The value of shipments followed the same trend, declining from $1.1 billion in 1969 to approximately $990 million in 1970 and 1971 and then increasing dramatically to $1.8 billion in 1974. During January-June 1975 the value of shipments totaled $784 million, compared with $854 million during the corresponding period in 1974--representing a decline of 8 percent.

The percentage distribution of U.S. producers' total shipments of bolts, nuts, and screws in specific geographic regions in 1972 is shown in the following table.

Bolts, nuts, and screws: 1/ Percentage distribution of the value of shipments by all U.S. manufacturing establishments, by geographic regions, 1972

Region	Percent
New England	8.4
Middle Atlantic	15.9
North Central	61.5
South Atlantic South Central Mountain Pacific	11.2 3.0
Total	100.0

1/ Includes ferrous and nonferrous bolts, nuts, screws, studs, and similar externally and internally threaded fasteners; does not include such fasteners shipped to the aircraft industry, the major part of which are believed to be nonferrous fastners.

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

In 1972, manufacturing establishments located in the Middle Atlantic and North Central regions of the United States accounted for the vast majority of the shipments. The major producing States in these two regions are Pennsylvania, Ohio, Illinois, and Michigan.

The majority of U.S. shipments of bolts, nuts, and screws of iron or steel are fabricated from carbon steel (table 15). In 1974, shipments of fasteners made from carbon steel accounted for 87 percent of the quantity and 76 percent of the value of total fastener shipments.

There are some U.S. producers of ferrous bolts, nuts, and screws which produce fasteners for captive use in the manufacture of other products. The largest of these companies are International Harvester

Co., Deere & Co., Ford Motor Co., and Bethlehem Steel Corp. The intracompany shipments, which are comprised entirely of bolts, nuts, and the larger size screws, generally followed the same trend as total U.S. shipments except in 1974, when intracompany shipments declined from what they had been in 1973 (table 16). During 1969-74, intracompany shipments accounted for approximately 5 to 6 percent of the total U.S. shipments of ferrous bolts, nuts, and screws.

Bolts.-Annual U.S. shipments of all types of bolts declined from 1,054 million pounds in 1969 to 935 million pounds in 1971 and then increased to 1,174 million pounds in 1974 (table 1). Shipments during January-June 1975 totaled 546 million pounds, 9 percent less than in the corresponding period in 1974.

The value of U.S. shipments of bolts declined from $373 million in 1969 to $326 million in 1971 and then increased substantially to $556 million in 1974. During January-June 1975, shipments amounted to $272 million, which was 3 percent less than in January-June 1974.

The percentage distribution of U.S. producers' total shipments of bolts and screws in specific geographic regions in 1972 is shown in the following table.

Bolts and screws: 1/ Percentage distribution of the value of shipments by all U.S. manufacturing establishments, by geographic regions, 1972

Region	Percent
New England	9.4
Middle Atlantic	13.2
East North Central	59.1
West North Central	2.2
South Atlantic	5.8
East South Central	5.7
West South Central	1.0
Mountain	.4
Pacific	3.2
Total	100.0

1/ Includes ferrous and nonferrous bolts, screws, studs, and similar externally threaded fasteners; does not include such fasteners shipped to the aircraft industry, the major part of which are believed to be nonferrous fasteners.

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

In 1972, manufacturing establishments located in the Middle Atlantic and East North Central regions accounted for the vast majority of the shipments.

Bolts which are fabricated by U.S. manufacturers for captive use in the manufacture of other products are by far the largest item of total intracompany shipments of bolts, nuts, and screws (table 16). During 1969-72, bolts represented approximately 86 percent of total intracompany shipments. This share declined to 82 percent in 1973 and 78 percent in 1974.

Mine roof bolts.--U.S. shipments of mine roof bolts declined from 462 million pounds in 1969 to 429 million pounds in 1971 and then increased to 541 million pounds in 1974 (table 4). A substantial

portion of these shipments are made by U.S. steel producers for use in their captive coal mines.

Square, hex, round head, and high-strength structural bolts.--U.S. shipments of square, hex, round head, and high-strength structural bolts consist mainly of high-volume, commodity-type items. U.S. shipments of square and hex bolts increased from 185 million pounds in 1969 to 188 million pounds in 1970 and then declined to 169 million pounds in 1971 (table 4). Shipments of these types of bolts increased to 187 million pounds in 1973 and then declined to 162 million pounds in 1974.

U.S. shipments of round head bolts declined from 106 million pounds in 1969 to 91 million pounds in 1971 and then increased to 108 million pounds in 1972 (table 4). Shipments of this type of bolts declined to 99 million pounds in 1973 and then increased substantially to 115 million pounds in 1974.

U.S. shipments of high-strength structural bolts declined from 83 million pounds in 1969 to 71 million pounds in 1971 and then increased to 100 million pounds in 1973 (table 4). In 1974, shipments of this type of bolts declined to 94 million pounds.

Nuts.--Annual shipments of domestically produced nuts declined from 340 million pounds in 1969 to 264 million pounds in 1971 and then increased annually, to 312 million pounds in 1974 (table 1). During January-June 1975, shipments of all types of nuts amounted to 126 million pounds, which was 24 percent less than in the corresponding period in 1974.

The value of U.S. shipments of nuts declined from $192 million in 1969 to $170 million in 1971 and then increased dramatically to $334 million in 1974. U.S. shipments in January-June of 1974 and 1975 were almost the same, totaling approximately $157 million.

The percentage distribution of U.S. producers' total shipments of nuts in specific geographic regions in 1972 is shown in the following table.

Nuts: 1/ Percentage distribution of the value of shipments by all U.S. manufacturing establishments, by geographic regions, 1972

Region	Percent
New England	4.7
Middle Atlantic	26.6
North Central	61.8
South Atlantic	
South Central	5.8
Mountain	
Pacific	1.1
Total	100.0

1/ Includes ferrous and nonferrous nuts and similar internally threaded fasteners; does not include such fasteners shipped to the aircraft industry, the major part of which are believed to be nonferrous fasteners.

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

Like the producers of bolts and screws, the nut-manufacturing establishments located in the Middle Atlantic and the North Central regions of the United States accounted for the vast majority of the shipments.

Nuts which are produced by U.S. manufacturers for captive shipments are small in volume compared with total intracompany shipments

of all bolts, nuts, and screws of iron or steel (table 16). Captive shipment of nuts are comprised almost entirely of square and hex nuts.

Square and hex nuts.--U.S. shipments of square and hex nuts, the high-volume, commodity-type nuts, declined from 205 million pounds in 1969 to 124 million pounds in 1974 (table 5). U.S. shipments during January-June 1975 amounted to 43 million pounds, representing a decline of 30 percent from the shipments in the corresponding period in 1974.

Locknuts.--Shipments of domestically produced locknuts declined from 97 million pounds in 1969 to 80 million pounds in 1971 and then increased annually, to 123 million pounds in 1974 (table 5). During January-June 1975, domestic shipments totaled 56 million pounds, representing a decline of 12 percent from the shipments in the corresponding period in 1974.

Screws.--Annual U.S. shipments of all types of screws declined from 931 million pounds in 1969 to 819 million pounds in 1971 and then increased to 1,059 million pounds in 1973 (table 1). Shipments in 1974 declined slightly to 1,055 million pounds. Shipments during January-June 1975 amounted to 388 million pounds, representing a decline of 30 percent from the shipments in the corresponding period in 1974.

The value of shipments showed a slightly different trend, declining from $487 million in 1969 to $471 million in 1970 and then increasing annually, to $863 million in 1974. During January-June 1975, shipments amounted to $356 million, 14 percent less than in January-June 1974.

Data on screws were combined with those on bolts in the table showing the percentage distribution of U.S. producers' total shipments of these products in specific geographic regions in 1972, since that was the only way that the products were reported in the 1972 Census of Manufactures.

Screws which are fabricated by U.S. manufacturers for captive shipments are comprised entirely of the large screws, with cap screws representing the majority of these shipments (table 16).

Large screws.--U.S. shipments of large screws declined from 551 million pounds in 1969 to 473 million pounds in 1971, and then increased to 585 million pounds in both 1973 and 1974 (table 6). During January-June 1975, U.S. shipments amounted to 233 million pounds, which was 24 percent less than shipments during the corresponding period in 1974. The value of shipments of large screws declined from $230 million in 1969 to $211 million in 1970 and then increased annually, to $392 million in 1974. During January-June 1975, the value of shipments amounted to $179 million, compared with $186 million in the corresponding period in 1974.

Small screws.--U.S. shipments of small screws declined from 380 million pounds in 1969 to 346 million pounds in 1971 and then increased to 473 million pounds in 1973 (table 7). In 1974, shipments declined slightly to 470 million pounds. During January-June 1975 domestic shipments amounted to 155 million pounds, representing a decline of 38 percent from the shipments in the corresponding period in 1974.

The value of these shipments increased annually, from $257 million in 1969 to $472 million in 1974. During January-June 1975, shipments

amounted to $177 million, representing a decline of 23 percent from the $230 million reported for the corresponding period in 1974.

U.S. exports

Bolts, nuts, and screws.--U.S. exports of bolts, nuts, and screws of iron or steel declined from 113 million pounds in 1969 to 99 million pounds in 1971 and then increased to 187 million pounds in 1974 (table 17). During January-June 1975, exports amounted to 95 million pounds, 9 percent greater than in the corresponding period of 1974.

The value of U.S. exports remained relatively constant during the years 1969-71, averaging approximately $60 million. Exports then increased substantially to $125 million in 1974. In January-June 1975 the value of exports totaled $68 million, 21 percent greater than in the corresponding period of 1974.

The average value per pound of all bolts, nuts, and screws exported rose from $0.53 per pound in 1969 to $0.67 per pound in 1974. During January-June 1975 the average value continued to rise, amounting to $0.71 per pound.

Although the United States exports bolts, nuts, and screws to many countries, Canada, the United Kingdom, Japan, and Mexico have been the principal markets. On the basis of quantity, Canada alone has accounted for approximately 85 percent of total U.S. exports.

Bolts.--U.S. exports of bolts, based on quantity, were much smaller than U.S. imports during the years 1969-74 (table 1). However, the value of exports was larger than that of imports until 1972.

U.S. exports of bolts, threaded rods and studs, including nuts where nuts and bolts are in the same shipment 1/, declined from 56 million pounds in 1969 to 48 million pounds in 1971 and then increased to 78 million pounds in 1974 (table 18). During the years 1969-72, the value of annual exports fluctuated between $23 million and $25 million. In 1973 and 1974, the value of exports rose to $32 million and $44 million, respectively. The average value per pound of all bolts exported rose from $0.43 in 1969 to $0.57 in 1974. During January-June 1975 the average value rose to $.66 per pound.

The principal markets for U.S. exports of bolts during 1969-74 were Canada, the United Kingdom, Mexico, and France. U.S. exports to countries other than Canada generally consist of low-volume, single-purpose fasteners.

Nuts.--U.S. exports of nuts were much smaller than U.S. imports (both the quantity and the value) during the years 1969-74 (table 1). The quantity of exports of nuts ranged between 12 million and 13 million pounds during 1969-71 and then increased annually to 32 million pounds in 1974 (table 19). The annual value of exports during 1969-71 ranged between $9 million and $10 million, and then increased without interruption to $23 million in 1974. The average value per pound of all nuts increased from $0.73 in 1969 to $0.81 in 1971 and then declined sharply to $0.64 in 1972. In 1973 and 1974, the average value per pound rose to $0.67 and $0.71, respectively. During January-June 1975, the average value was $0.59 per pound.

1/ It is estimated by the staff of the Commission that bolts accounted for approximately 90 percent of these exports.

The principal markets for U.S. exports of nuts during 1969-74 were Canada, the United Kingdom, Mexico, and Japan.

Screws.--U.S. exports of screws, rivets, washers and similar articles, 1/ were smaller than U.S. imports (both the quantity and the value) during the years 1969-74 (table 1). Exports of screws declined from 44 million pounds in 1969 to 40 million pounds in 1971 and then increased to 78 million pounds in 1974 (table 20). The annual value of exports during 1969-71 was approximately $27 million and thereafter it rose continuously to $58 million in 1974. The average value per pound for all screws increased from $0.60 in 1969 to $0.69 in 1971 and then declined to $0.63 in 1972. In 1973 and 1974 the average value per pound increased to $0.66 and $0.75, respectively. During January-June 1975, the average value was $0.85 per pound.

The principal markets for U.S. exports of screws during 1969-74 were Canada, the United Kingdom, Japan, West Germany, and Mexico, with Canada again being the largest customer.

U.S. exports of large screws declined from 27 million pounds in 1969 to 24 million pounds in 1971 and then increased to 50 million pounds in 1974 (table 6). Exports of small screws followed the same trend, declining from 17 million pounds in 1969 to 15 million pounds in 1971 and then increasing to 28 million pounds in 1974 (table 7).

U.S. producers' inventories:

Bolts, nuts, and screws.--U.S.-made bolts, nuts, and screws of iron or steel in U.S. producers' inventories at the end of each calendar

1/ It is estimated by the staff of the Commission that screws accounted for approximately 90 percent of these exports.

year increased from 395 million pounds in 1969 to 452 million pounds in 1970 and then declined to 335 million pounds in 1973 (table 21). Inventories of ferrous fasteners increased to 362 million pounds at the end of 1974, with the major increase occurring in July-December 1974. Inventories as of June 30, 1975, totaled about 415 million pounds, 31 percent more than on June 30, 1974, and 14 percent more than on December 31, 1974. The ratios of U.S. producers' inventories of bolts, nuts, and screws to U.S. producers' shipments of these products are shown in the following table.

Bolts, nuts, and screws of iron or steel: Ratios of U.S. producers' inventories to U.S. producers' shipments, by items, 1969-74, January-June 1974, and January-June 1975 1/

(In percent)

Item	1969	1970	1971	1972	1973	1974	January-June--	
							1974	1975
Bolts	12.2	14.8	15.0	11.5	10.2	10.0	16.1	24.4
Nuts	23.3	31.3	33.7	32.2	22.0	23.4	38.7	67.7
Screws:								
Large	20.0	24.0	23.1	21.1	13.7	13.5	25.9	49.5
Small	20.3	24.4	25.5	20.6	16.5	18.7	31.0	52.0
Total screws	20.1	24.2	24.1	20.9	15.0	16.3	28.2	50.5
Total, all items	17.0	20.8	21.2	18.2	13.8	14.3	24.0	39.1

1/ Data represent the ratios of U.S. producers' inventories at the end of the period shown to U.S. producer's shipments during the same period, based on quantity.

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

On the basis of staff fieldwork, the Commission learned that U.S. producers attributed the increase in their fastener inventories during July-December 1974 and January-June 1975 to a decline in demand for their

products which began in late 1974, coupled with the delivery of unneeded raw materials ordered prior to this decline in demand. The "forward ordering" of raw materials was done because of the apparent shortage of the required steel products at the time the orders were placed. The U.S. producers decided to continue fabricating the raw material rather than have a significant portion of it scrapped because of corrosion.

Bolts.--U.S. producers' inventories of all types of bolts as of December 31 of each year increased from 129 million pounds in 1969 to 150 million pounds in 1970 and then declined to 108 million pounds in 1973 (table 21). Inventories increased to 117 million pounds in 1974. As of June 30, 1975, inventories had increased to 133 million pounds, 38 percent more than on the corresponding date in 1974 and 14 percent more than on December 31, 1974.

Nuts.--Nuts of iron or steel in U.S. producers' inventories as of December 31 of each year increased from 79 million pounds in 1969 to 93 million pounds in 1970 and then declined to 89 million pounds in 1971 (table 21). At the end of 1972 the inventories increased to 98 million pounds and then declined to 68 million pounds in 1973. At the end of 1974 they totaled 73 million pounds. As of June 30, 1975, inventories of nuts amounted to 85 million pounds, 33 percent more than on June 30, 1974, and 17 percent more than on December 31, 1974.

Screws.--U.S. producers' inventories of all screws as of December 31 of each year increased from 187 million pounds in 1969 to 209 million pounds in 1970 and then declined to approximately 197 million pounds in 1971 and 1972 (table 21). Inventories declined further to 158 million

pounds at the end of 1973 and then increased to 172 million pounds in 1974. As of June 30, 1975, U.S. producers' inventories amounted to 196 million pounds, 25 percent more than on June 30, 1974, and 14 percent more than on December 31, 1974.

All of the increase in U.S. producers' inventories during January-June 1975 was accounted for by the large screws, since inventories of small screws declined from 88 million pounds as of December 31, 1974, to 80 million pounds as of June 30, 1975 (table 21).

U.S. employment

The average number of persons employed in U.S. establishments in which bolts, nuts, and screws of iron or steel were produced declined from 55,009 in 1969 to 49,518 in 1971 and then increased to 54,284 in 1974 (table 22). During January-June 1975 the number of all employees totaled 48,120, down 12 percent from the number in the corresponding period in 1974.

The average number of production and related workers engaged in the production of bolts, nuts, and screws of iron or steel declined from 30,929 in 1969 to 27,351 in 1971 and then increased to 28,907 in 1974 (table 22). During January-June 1975 the number of production and related workers so engaged declined to 24,109, down 18 percent from the number employed during January-June 1974.

The average number of production and related workers engaged in the production of bolts, nuts, and large screws declined from 20,232 in 1969 to 16,858 in 1972 and then increased slightly to 17,390 in 1974 (table 22). During the same period, the average number of production and related workers engaged in the manufacture of small screws increased

irregularly from 10,697 in 1969 to 11,517 in 1974. During January-June 1975, the average number of production and related workers engaged in the manufacture of bolts, nuts, and large screws declined 14 percent, while those engaged in the manufacture of small screws declined 24 percent from the number so engaged in the corresponding period in 1974.

The number of man-hours worked by production and related workers producing all products in the establishments in which nuts, bolts, and screws of iron or steel were produced declined from 93.9 million in 1969 to 80.2 million in 1971 and then increased to 95.3 million in 1974 (table 23). During January-June 1975, the number of man-hours worked totaled 37.9 million, representing a decline of 19 percent from the total number worked in the corresponding period in 1974.

In those same establishments, the number of man-hours worked in producing bolts, nuts, and screws of iron or steel declined from 67.1 million in 1969 to 56.3 million in 1971 and then increased to 63.3 million in 1974 (table 23). During January-June 1975, man-hours worked in the production of all ferrous fasteners totaled 23.3 million, representing a decline of 25 percent from the number worked in the corresponding period in 1974.

During January-June 1975, man-hours worked in producing small screws declined 36 percent from the number worked in the corresponding period in 1974. Manhours worked in the production of bolts, nuts, and large screws during January-June 1975 declined 17 percent from the number worked in the corresponding period in 1974.

Productivity

Changes in the productivity of U.S. producers of bolts, nuts, and screws of iron or steel are briefly reviewed below. Productivity, for the purpose of this discussion, is defined as the ratio of total volume of physical output to the number of man-hours worked to produce that output. Although this measure relates output to man-hours, it does not measure the specific contributions of labor or capital or any other factor of production. Rather it reflects the joint effort of all factors of production.

In the following table domestic production (output) per production worker man-hour is presented in index form for all U.S. producers of bolts, nuts, and screws for the years 1969-74. It can be readily seen that output (measured in pounds) per manhour has increased significantly during the period.

Index of domestic production (output) per production or related worker man-hour for U.S. producers of bolts, nuts, and screws of iron or steel, 1969-74

1969=100

Year	Production (output) 1/ per production worker man-hour
1969	100
1970	107
1971	103
1972	109
1973	109
1974	118

1/ Domestic production measured in pounds.

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

Three major factors appear to explain the large increase in the productivity of the U.S. fastener producers. First, the closing of certain old productive facilities appears to have had a favorable influence on aggregate productivity. Second, a shift in product mix away from bolts and nuts of middle range diameters (1/4 to 1/2 inch) to similar fasteners of larger diameters has had a positive effect on output per man-hour. Third, newer and more efficient capital equipment has come into production during the last 6 years.

Prices

According to the U.S. Bureau of Labor Statistics (BLS), wholesale prices of domestic fasteners trended moderately upward from at least January 1965 to the beginning of 1974, then rose sharply and remained near record levels through July 1975. Figure 17 shows the long-term trends of wholesale price indexes for two fastener products--nuts and cap screws--from 1965 to 1975, derived from BLS published statistics and converted to a 1965 base. (The statistics for this graph are shown in table 24 in appendix A).

To obtain more detailed information, recipients of the Commission's questionnaires were asked to report their lowest net selling prices, in both the distributor and original-equipment-manufacturer (OEM) markets, for the first and second halves of 1972 and quarterly thereafter. They were also asked to provide the quantity sold at the lowest selling price so that weighted averages could be obtained. (About half of the respondents included such quantity data.) In each case the recipients were asked for their price and quantity data for 11 popular

fastener products thought to typify the price pattern of the bulk of the 2 million products of this industry. It was found that only a few of the sellers (whether producers, importers, or distributors) sold 6 or more of the 11 fasteners listed on the questionnaires. Most appeared to specialize in certain product lines. Cost data, by fastener, were also requested from major producers for 1972 and 1974.

The responses to the questionnaires were aggregated and are shown in appendix A as table 25 for sales to distributors, as table 26 for sales to OEM's, and as table 27 for costs.

As can be seen in the tables, for each of the 11 products, the price of the domestic product rose through at least the third quarter of 1974 in both the distributor and OEM markets, leveling off or falling only slightly thereafter. The stainless steel products are exceptions in that they fell off drastically in 1975, * * *. This may or may not be a true picture of price performance for stainless steel fasteners, since the only producer reporting sales for the entire period is also an importer that apparently mixed its own production with its lower priced imports in making sales at the low figure. It is also known from investigations on other stainless steel products, that stainless steel items are experiencing their own unique price pressures.

When selected fastener price indexes are compared with BLS price indexes for durable manufactures and miscellaneous metal products, as shown on the next page, fastener prices are seen to have grown much faster starting in 1973 and, even after declining slightly in 1975,

Nuts, bolts, and screws of iron or steel: Price indexes of selected fasteners, together with price indexes of large product groups during certain periods, January 1972-June 1975

(January-June 1972=100.0)

Period	Durable manufactures	Miscellaneous metal products	Cap screw, Grade 2, 3/8" - 16 x 1"	Hexagon nut, 1/4" - 20	Structural bolt, A325, 3/4" x 2"	Sheet metal (tapping) screw, 10 x 3/4"	Machine screw 1/4" - 20 x 1"	Wood screw, 10 x 1-1/4"
1972:								
January-June	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
July-December	101.2	100.9	102.3	89.5	98.5	96.4	100.9	103.8
1973:								
January-March	102.9	101.9	109.0	123.1	107.2	122.5	129.8	113.2
April-June	105.8	103.6	107.6	121.9	112.8	125.4	129.8	113.3
July-September	106.3	105.6	113.2	123.7	112.9	127.1	129.6	113.3
October-December	108.1	108.1	115.9	119.9	112.1	129.3	135.3	91.8
1974:								
January-March	112.4	112.1	119.5	138.3	131.8	121.4	114.6	121.8
April-June	120.1	123.6	163.9	162.6	156.8	137.1	123.0	125.3
July-September	128.3	134.5	205.0	217.3	207.6	156.1	153.0	98.3
October-December	133.0	142.0	212.2	197.7	205.8	154.3	142.2	132.8
1975:								
January-March	135.4	144.8	235.3	236.0	192.0	176.1	173.4	147.8
April-June	136.9	146.0	200.6	235.7	202.9	171.4	173.7	139.2

Source: Indexes for durable manufactures and miscellaneous metal products from U.S. Bureau of Labor Statistics; indexes for fasteners derived from table 25 in appendix A.

remained at much higher levels than the prices of other metal products (except for the wood screw, whose index ended up between the levels of the two nonfastener indexes).

In 1973 the domestic producers apparently experienced a shortage of steel wire, bar, and rod--the basic raw materials for fasteners. As steel became more difficult to obtain, even at higher prices, lead times for steel and for fasteners increased and some orders went unfilled. This led in turn to double and triple ordering by fastener purchasers as they tried to protect themselves and meet their own orders. (While fastener costs are a small part of total costs of most manufactured products, failure to obtain fasteners can lead to very costly production-line shutdowns.) Thus during 1974, purchasers were scrambling to buy fasteners from several sources, duplicating orders even at record prices, and thereby sending signals to producers to increase production to full capacity and to expand capacity if possible. It is not surprising that prices, profits, and production reached record levels in this period.

By the middle of 1974 the recession had begun to affect fastener buyers, whose inventories of their own fininshed product and fasteners and other materials rose. The duplicating of orders was stopped and orders canceled when possible. By late 1974, demand had fallen rapidly with inventories backed up from OEM's all the way through to steel raw materials. By mid-1975, fastener prices had leveled off or declined.

Other causes contributing to the overall price rise between 1972 and 1975 were increases in labor costs, and increases in overhead. These were generally even greater than the increases in material costs.

Cost data are shown in table 27 in appendix A. When prices and costs are compared for 1972 and 1974, the rise in prices through 1974 is seen to have exceeded the rise in costs for all but structural bolts, carriage bolts, and wood screws.

Profit-and-loss experience

The data reported by the U.S. producers of fasteners account for a total in excess of 90 percent of the total U.S. production of fasteners for 1969-75. Data on the operations of firms that have only captive sales are not included.

Aggregate net sales of domestically produced fasteners by firms reporting on their financial experience decreased from $923 million in 1969 to $843 million in 1970 and then increased steadily, to $898 million in 1971, $1.1 billion in 1972, $1.3 billion in 1973, $1.6 billion in 1974, and $509 million in January-June 1975 (table 28). Data shown for 1975 in this report do not include statistics for those firms whose fiscal year ended June 30, 1975. Data for those firms were included in 1974, and their exclusion from the figures for 1975 accounts for only a part of the decrease in sales in that period. The decrease in net sales for those firms included in the 1975 data was 12.5 percent from net sales in 1974.

Net operating profit decreased from $70.6 million in 1969 to $34.6 million in 1970, then increased to $46.7 million in 1971, $73.5 million in 1972, $137.4 million in 1973, and $243.8 million in 1974. Net operating profit was $64.6 million in January-June 1975.

The ratio of net operating profit to net sales ranged from 4.1 percent to 7.6 percent in the period 1969-72. The net operating profit ratio increased to 10.4 percent in 1973 and 14.8 percent in 1974, then decreased to 12.7 percent in January-June 1975.

Firms which sell principally to the automotive industry are less susceptible to the impact of imports than other firms because the automotive industry requires many limited-purpose fasteners and often inspects the plants to be certain that the products meet the standards set by certain parts of the Auto Safety Act.

Republic Steel closed its bolt and nut division in December 1972. No other major producer ceased all fastener operations; however, five or six plant closings did occur in 1969-75.

Table 29 shows the operations of those firms producing small screws and the combined figures for the operations of the producers of bolts, nuts, and large screws.

Small-screw producers reported net sales of fasteners of $273 million in 1969. After decreasing to $245 million in 1970, net sales increased annually, to $458 million in 1974. Net annualized sales of the small-screw producers included for January-June 1975 decreased 32 percent from those reported by the same firms for 1974, while the net sales of the producers of bolts, nuts, and large screws decreased only 4 percent from 1974 to January-June 1975, annualized. Only firms reporting in both 1974 and January-June 1975 could be compared.

The ratio of net operating profit to net sales for small-screw producers decreased from 12.2 percent in 1969 to 7.6 percent in 1971, then

increased annually, to 12.6 percent in 1974. The ratio for January-June 1975 decreased to 6.5 percent.

The ratio of net operating profit to net sales for producers of bolts, nuts, and large screws ranged between 2.4 percent and 5.7 percent in the period 1969-72. The ratio then increased substantially to 9.4 percent in 1973 and 15.6 percent in 1974 and was 14.2 percent for January-June 1975. The ratio of net operating profit to net sales was more than twice as high for bolts, nuts, and large screws as it was for small screws for the period January-June 1975.

Fortune magazine reported the average ratio of net earnings (after taxes) to net sales for the metal manufacturing industry as follows; 4.7 percent in 1969, 3.2 percent in 1970, 2.2 percent in 1971, 3.3 percent in 1972, 3.9 percent in 1973, and 6.2 percent in 1974.

U.S. producers' efforts to compete with imports

Total capital expenditures for facilities which are used directly or indirectly in the fabrication of U.S.-made bolts, nuts, and screws of iron or steel is set forth in the table below.

Bolts, nuts, and screws of iron or steel: Total capital expenditures for facilities which are used directly and indirectly in the fabrication of U.S.-made fasteners, 1969-74 and January-June 1975

(In thousands of dollars)

Period	Total capital expenditures
1969	28,628
1970	23,103
1971	18,718
1972	16,972
1973	47,312
1974	33,352
1975:	
January-June	15,376

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

Note.--Data were based on responses to Commission questionnaires by U.S. producers that accounted for approximately 50 percent of the value of all domestic shipments in 1974.

Total capital expenditures, based on data submitted to the Commission by domestic producers, represented, on the average, 4.4 percent of their shipment revenue for the period 1969 through June 1975.

Capital expenditures for individual items (land, buildings, and machinery) from 1969 through June 1975 are shown in table 30.

Expenditures for research and development, based on data submitted to the Commission by domestic fastener producers, increased irregularly from $5.4 million in 1969 to $7.8 million in 1974 (table 31). For the

period 1969 through June 1975, expenditures for research and development amounted to approximately 1 percent of the value of their total shipments.

According to responses to Commission questionnaires, many domestic producers have intensified their marketing activities in an effort to compete more effectively with imports. This marketing effort has concentrated on uncovering, developing, and satisfying end users' fastener requirements which involve limited-purpose fasteners, often referred to in the trade as "special" fasteners.

The Question of Imports as a Substantial Cause of Serious Injury

Demand factors

The demand for industrial fasteners is derived from the demand for automobiles, machinery, appliances, and other durable goods. Durability is a factor that permits discretion in the timing of purchases; consequently cyclical fluctuations in durable goods production have usually been much wider than those in the production of nondurable goods, and they have extended over longer periods of time. Not surprisingly, the demand for industrial fasteners is cyclical in nature.

Another factor which may influence the demand for fasteners is the fact that fasteners are intermediate goods. This means that fasteners are not consumed as final products but rather as components in the production of the durable goods previously mentioned. One witness at the public hearing suggested that, because fasteners are intermediate goods, a decline in the demand for durable goods would result in a larger percentage decline in the demand for fasteners. The witness reasoned that a fastener-consuming manufacturer, facing declining demand for his own products, would sharply curtail his fastener inventories to match declining production. Therefore, not only would a smaller quantity of fasteners be used on the assembly line, but also a smaller quantity would be held in stock.

Fastener-consuming markets

In 1974 domestic producers of fasteners sold more than 70 percent of all shipments directly to the original-equipment market (OEM) (value data shown in table 32). The largest OEM customers are the

motor vehicle manufacturers, which purchased in 1974 at least 25 percent of all U.S.-made fasteners. Other important OEM customers of U.S.-made fasteners are firms producing nonelectric machinery (including farm equipment) and rail and other miscellaneous transportation equipment.

In contrast, fastener importers market only 15 percent of their shipments directly to OEM customers (value data shown in table 33). However, based on responses by leading U.S. fastener distributors to Commission questionnaires, foreign-made fasteners are apparently consumed by the same OEM manufacturers as are U.S.-made fasteners, with the exception of the aircraft manufacturers.

U.S. consumption

Bolts, nuts, and screws.--Total U.S. apparent consumption of bolts, nuts, and screws declined from 2.7 billion pounds in 1969 to 2.4 billion pounds in 1971 and then increased annually, to 3.3 billion pounds in 1974 (table 1). The total value of apparent consumption followed the same trend. Total U.S. apparent consumption declined significantly by quantity and value, in January-June 1975 compared with consumption in the corresponding period of 1974.

The ratio of imports to apparent consumption, by quantity, rose from 17 percent in 1969 to 23 percent in 1973 and then increased rapidly to 28 percent in 1974. The ratio for January-June 1975 was 25 percent, virtually unchanged from that for January-June 1974.

Table 34 expresses the key trade statistics on bolts, nuts, and screws in index form, with 1969 designated as the base year. This table

also contains industrial production indexes for all durable goods manufacturers and for particularly important fastener-consuming manufacturers. These index numbers likewise use 1969 as the base year.

Based on data in this table, combined apparent consumption of bolts, nuts, and screws seems to correlate quite closely with industrial production of all durable goods manufacturers during the period 1969-73. The index of annual apparent consumption was 100,96, 89, 102, and 111 from 1969 to 1973. The index of annual industrial production for all durable goods manufacturers was 100, 92, 90, 99, and 111 from 1969 to 1973. These indexes seem to corroborate the belief that the demand for industrial fasteners is derived from the demand for durable goods (autos, machinery, and so forth). During this same period imports increased considerably faster than domestic producers' shipments, by 48 percent as opposed to 4 percent.

The year 1974 was an extraordinary one for domestic fastener manufacturers and importers alike. As shown in table 34, domestic production and shipments increased significantly. Apparent consumption of fasteners increased by 11 percent despite slackening activity in many major fastener-consuming markets. In fact, industrial production of all durable goods manufacturers actually declined in 1974. Industrial production of motor vehicles and parts declined 18 percent. The result of this paradoxical situation is the large buildup of inventories now held by importers, fastener producers, and distributors.

The currently depressed market for industrial fasteners is in part a result of both the 1974 shortage situation and the stockpiling it engendered. As supply tightened in early 1974, durable goods

manufacturers actively sought secondary and tertiary sources of industrial fasteners. The manufacturer's position is reasonable in that he could lose a $3,000 sale, that of a car for instance, because he lacked a dozen screws. When this possibility is multiplied a thousandfold, the fastener boom of 1974 becomes explicable. Double and triple ordering exacerbated the supply situation, drove up prices, and reinforced the belief that the fastener shortage was, in fact, acute. According to trade sources, the situation was completely out of hand by spring of 1974.

Foreign suppliers responded to the feverish sellers' market and provided large quantities of fasteners at very high prices. The quantity of imports increased by 37 percent and the value, by 118 percent in 1974. The fastener market retrenched in the final months of 1974 as end users, then distributors, and then manufacturers and importers realized the full extent of the inventory overhang.

Bolts.--Total U.S. apparent consumption of all types of bolts declined from 1,121 million pounds in 1969 to 1,015 million pounds in 1971 and then increased substantially to a peak of 1,323 million pounds in 1974 (table 1). The total value of annual U.S. consumption of bolts followed the same trend, declining from $366 million in 1969 to $325 million in 1971 and then increasing to $602 million in 1974. The quantity (pounds) of apparent consumption increased approximately 18 percent from 1969 to 1974, while the value increased 64 percent.

The ratio of imports to apparent consumption, for both quantity and value, increased in each successive year during 1969-74. The number

of pounds imported represented 11 percent of U.S. consumption in 1969 and 17 percent in 1974.

Imports of mine roof bolts were negligible throughout the period under consideration. The following table expresses the ratio of imports to consumption for bolts, including and excluding mine roof bolts in 1969-74 and January-June 1975.

Bolts of iron or steel: Ratios of U.S. imports to U.S. consumption, based on quantity, 1969-74, January-June 1974, and January-June 1975

(In percent)

Period	Ratio of imports to consumption of--	
	Bolts, total	Bolts, excluding mine roof bolts
1969	11.0	18.7
1970	11.6	19.7
1971	12.7	21.9
1972	13.9	23.1
1973	14.3	23.5
1974	17.1	34.1
January-June--		
1974	13.7	23.2
1975	12.8	23.6

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

The detailed ratios of imports to consumption for high-volume, commodity-type bolts, such as hex and square, round head, and high-strength structural bolts, are considerably higher than the ratios for total bolts (table 4). Table 35 presents indexes of trade statistics on bolts and industrial production in major bolt-consuming markets.

Nuts.--Reflecting the general overall demand, U.S. apparent consumption of nuts declined from 493 million pounds in 1969 to 415 million pounds in 1971 and then increased annually, to 582 million pounds in 1974 (table 1). As was true for bolts, the value of consumption of nuts increased significantly more than the quantity from 1969 to 1974; value rose 130 percent, whereas quantity increased 18 percent.

The quantity of imports expressed as a share of consumption increased from 34 percent in 1969 to 39 percent in 1971. During 1972-74, the ratio of imports to consumption increased from 41 percent to 52 percent.

The imports-to-consumption ratio of high-volume hex and square nuts is higher than the corresponding ratio for total nuts and much higher than that for locknuts (table 5). From 1969 to 1974 the apparent consumption of locknuts increased faster than that of hex and square nuts--27 percent as opposed to 10 percent. Table 36 presents indexes of trade statistics relating to nuts and industrial production in major nut-consuming markets.

Large screws.--Apparent domestic consumption of large screws declined from 607 million pounds in 1969 to 535 million pounds in 1971 (table 6). Consumption increased annually to 783 million pounds in 1974.

The ratio of imports to consumption, based on quantity, moved steadily higher from 13.7 percent in 1969 to 23.0 percent in 1973. In 1974 the ratio increased rapidly to 31.7 percent. Indexes of

trade statistics on large screws and industrial production in major large-screw-consuming markets are shown in table 37.

Small screws.--The apparent consumption of small screws decreased from 443 million pounds in 1969 to 404 million pounds in 1971 (table 7). Apparent consumption then increased annually, to 577 million pounds in 1974. Apparent consumption was down sharply during January-June 1975, when it was 174 million pounds, 43 percent less than in January-June 1974. Industrial production in major small-screw-consuming markets has been particularly hard hit by the current economic downturn (see indexes in table 38).

The ratio of imports to consumption, based on quantity, increased from 18.0 percent in 1969 to 23.3 percent in 1974, then dropped to 18.4 percent in January-June 1975.

Price relationships between imported and domestic fasteners

Price data obtained from the importer questionnaires for 1972 through June 1975 are shown in table 25, appendix A. The price ranges and weighted averages shown for imported fasteners are only for imports from Japan, since Japan supplies about two-thirds of U.S. imports and was the only foreign source for which price data were reported for each period. Prices of fasteners from other sources in the Orient (Hong Kong, Taiwan, Korea, and India) are often much lower than prices of Japanese fasteners. The prices of fasteners from European countries (France, Great Britain, and Portugal) are thought to be between United States producers' prices and prices of imports from Japan. Canadian exports (largely to the United

States automobile industry) are sold at or above United States producers' prices.

The prices in table 25, lowest net selling prices of U.S. producers and importers on sales to distributors, were converted to price index numbers, as shown on the next page, for easy comparison of growth rates.

Bolts, nuts, and screws of iron and steel: Indexes of lowest net selling prices received by U.S. producers and importers 1/ on sales of selected fasteners to distributors, by types and by specified periods, January 1972-June 1975

(January-June 1972=100)

Item	1972		1973				1974				1975	
	Jan.-June	July-Dec.	Jan.-Mar.	Apr.-June	July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June	July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June
Cap screws:												
Grade 2, 3/8"-16x1":												
Domestic	100.0	102.3	109.0	107.6	113.2	115.9	119.5	163.9	205.0	212.2	235.3	227.1
Imported	100.0	101.3	146.3	134.4	147.7	179.8	207.6	232.6	260.3	230.2	199.2	195.8
Grade 8, 3/8"-16x1":												
Domestic	100.0	98.8	114.5	115.5	115.5	115.3	127.0	143.2	157.1	168.6	160.6	161.7
Imported	***	2/	2/	***	***	***	***	***	***	***	***	***
Bolts:												
Structural bolt, A325, with nut, 3/4"x2":												
Domestic	100.0	98.5	107.2	112.8	112.9	112.1	131.8	156.8	207.6	205.8	192.0	202.9
Imported	***	***	***	140.1	***	***	205.9	225.6	273.3	269.3	249.5	213.1
Cariage bolt, 3/8"x3":												
Domestic	100.0	100.3	103.1	100.4	104.8	105.6	109.3	116.6	146.3	182.7	168.3	191.0
Imported	100.0	126.6	121.9	171.1	183.7	234.1	224.0	309.0	272.6	280.4	198.7	186.2
Nuts:												
Hexagon nut, 1/4"-20:												
Domestic	100.0	89.5	123.1	121.9	123.7	119.9	138.3	162.6	217.3	197.7	236.0	235.7
Imported	100.0	109.5	152.9	134.9	158.7	214.3	311.6	377.8	273.5	165.1	110.1	124.3
Hexagon nut, 1/2"-13:												
Domestic	100.0	99.2	113.7	108.9	119.6	119.5	161.7	203.5	249.8	228.1	235.2	206.2
Imported	100.0	97.5	114.1	123.7	131.1	189.7	290.4	319.0	261.5	178.2	129.5	130.3
Stainless steel items:												
Hexagon nut, 1/4"-20:												
Domestic	***	***	***	***	***	***	***	***	***	***	***	***
Imported	100.0	101.8	112.7	124.3	157.5	153.5	178.3	219.6	207.6	180.9	171.8	139.8
Machine screw, 1/4"-20x1":												
Domestic	***	***	***	***	***	***	***	***	***	***	***	***
Imported	***	***	***	***	***	***	***	***	***	2/	***	***

Bolts, nuts, and screws of iron or steel: Indexes of lowest net selling prices received by U.S. producers and importers 1/ on sales of selected fasteners to distributors, by types and by specified periods, January 1972-June 1975--Continued

(January-June 1972 = 100)

Item	1972		1973				1974				1975	
	Jan.-June	July-Dec.	Jan.-Mar.	Apr.-June	July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June	July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June
Other screws:												
Sheet metal (tapping), 10 x 3/4":												
Domestic	100.0	96.4	122.5	125.4	127.1	129.3	121.4	137.1	156.1	154.3	176.1	171.4
Imported	100.0	114.5	114.5	144.4	136.4	157.5	165.0	168.7	186.9	165.0	147.2	136.9
Wood, 10 x 1-1/4":												
Domestic	100.0	103.8	113.2	113.3	113.3	91.8	121.8	125.3	98.3	132.8	147.8	139.2
Imported	100.0	107.1	108.1	152.9	156.1	110.3	95.5	200.3	206.8	191.0	170.3	185.5
Machine 1/4" - 20 - 1":												
Domestic	100.0	100.9	129.8	129.8	129.6	135.3	114.6	123.0	153.0	142.2	173.4	173.7
Imported	100.0	92.6	92.8	103.6	74.0	128.2	148.7	139.9	169.5	126.5	110.7	103.8

1/ The indexes shown for imported fasteners are only for imports from Japan.
2/ Not available.

Source: Derived from table 25 in appendix A.

A review of the preceding table and table 25 is warranted because it is primarily in sales to distributors that the domestic producers and importers compete head to head, with price an important consideration. Since all independent and even some wholly owned distributors have the option of buying domestic or foreign fasteners, price is crucial, although "Buy American" policies are often adhered to when feasible.

Table 25 shows that in 1972, prices of most categories of imported fasteners were about 22 to 28 percent below the prices of comparable domestically made fasteners. By late 1973, the price differential was reduced, with some weighted average prices for imported fasteners already above comparable weighted average prices of U.S.-made fasteners. In January-June 1974, most of the imported bolts, nuts, and large screws and some of the small imported screws were priced above the U.S. products by about 15 to 30 percent. By late 1974, as import prices fell, the relationships reversed, and by mid-1975 the prices of imported fasteners were about 25 to 45 percent below the U.S. producers' prices. According to testimony in the hearings and information from trade sources, import prices are beginning to rise in the third quarter of 1975. There have been only scattered reports of discounting of domestic producers' prices.

It might be important to note in table 25 that the prices of imported stainless steel fasteners and tapping, wood, and machine screws never exceeded the prices of comparable U.S.-made fasteners for more than one quarter, if at all, during the entire period under discussion.

The trends noted above appear confirmed in table 26 for sales by U.S. producers and U.S. distributors to the OEM market.

The distributors range from those relying partially on imports to those handling domestic products exclusively. Thus their prices might be expected to fall between the domestic and foreign price.

Causes underlying the pricing patterns and trends are difficult to describe with assurance. For most categories of fasteners, the 1972 prices for imports were about 22 to 28 percent below the U.S. producers' prices. While this might reflect the lower price for Japanese steel, as was contended in the hearings, other factors probably also play a role. When ratios of imports to consumption for 1972 (as shown in tables 4-7) are compared for selected fasteners with the percentage difference between January-June 1972 prices of imported and domestic fasteners, the following picture is presented:

Item	Percent that prices of imports were below U.S. producers' prices	Ratio of imports to consumption, based on quantity
Structural bolts	23.6	15.1
Tapping screws	23.6	16.2
Cap screws (Grade 2)	26.5	19.1
Machine screws (plain)	34.3	25.1
Carriage bolts	43.7	34.3
1/4-inch hexagon nuts	44.7	54.0
Wood screws	48.3	49.0

The ranking based on the penetration ratios corresponds almost exactly to the ranking based on price differences in January-June 1972. The further the import price is below the domestic price, the greater penetration ratio of that product. Since we have no import-price data for years prior to 1972, it is not clear whether this is a cause-and-effect relationship.

It is apparent, from tables 25 and 26 and the price index table, that the price rise in 1974, started in late 1973 by the worldwide steel shortage and then pushed further by rising demand and by duplicate orders for fasteners, affected the prices of both the domestically produced and the imported fasteners.

Cost data from producers are shown in table 27 in appendix A. When these data are compared with cost data requested from a small sample of importers (shown on the following page), it can be seen that costs rose substantially, both domestically and overseas, although not by as much as prices. Hence profits, at least for domestic producers, also increased in 1974. (No profit data were available for importers.)

Nuts, bolts, and screws of iron or steel: Delivered costs of selected fasteners imported from Japan by certain U.S. importers during June of 1973, 1974, and 1975

(Costs per thousand pieces)

Period and item	Range	Average
June 1973		
Cap screw, grade 2, 3/8"-16x1"	$7.00- $9.07	$8.19
Hexagon nut, 1/4"-20	1.67- 2.26	1.88
Structural bolt, A325, 3/4"x2"	107.79-133.50	120.65
Sheet metal screw, 10x3/4"	2.12- 2.17	2.15
Machine screw, 1/4"-20x1"	2.73- 3.33	3.16
June 1974		
Cap screw, grade 2, 3/8"-16x1"	11.27- 16.64	14.33
Hexagon nut, 1/4"-20	3.40- 5.70	4.46
Structural bolt, A325, 3/4"x2"	175.54-280.99	228.27
Sheet metal screw, 10x3/4"	3.87	3.87
Machine screw, 1/4"-20x1"	4.28- 4.90	4.65
June 1975		
Cap screw, grade 2, 3/8"-16x1"	9.71- 12.00	10.62
Hexagon nut, 1/4"-20	1.63- 1.79	1.69
Structural bolt, A325, 3/4"x2"	202.50	202.50
Sheet metal screw, 10x3/4"	1.99- 2.27	2.13
Machine screw, 1/4"-20x1"	3.20- 3.47	3.35

Source: Data compiled from submissions made by certain U.S. importers.

Several other factors played a role in raising import prices. Two revaluations of the dollar occurred during the period, causing all imported products to go up in price. Further, the effects of recession hit Japan earlier than they hit the United States, forcing Japanese producers to find other markets to replace their collapsing domestic market.

By the second quarter of 1975, import prices had fallen an average of 36 percent from their earlier peaks, whereas the domestic prices, when they fell at all, fell by an average of only 4 percent. Why the the price of imports fell so rapidly, if not clear, but it was pointed out in the hearings that with Japan's 70-percent debt-to-equity ratio (versus 30 percent for the United States) Japanese producers are under great pressure to sell, even at a loss, to cover debt payments.

APPENDIX A
STATISTICAL TABLES

Table 1.--Bolts, nuts, and screws of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by items, 1969-74, January-June 1974, and January-June 1975

(Quantity in thousands of pounds; value in thousands of dollars)

Item and period	Producers' shipments	Imports 1/	Exports	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity				
Bolts:					
1969	1,053,717	123,252	2/ 55,507	1,121,462	11.0
1970	1,008,955	125,089	2/ 52,145	1,081,899	11.6
1971	934,714	128,904	2/ 47,674	1,015,944	12.7
1972	1,028,403	157,255	2/ 52,124	1,133,534	13.9
1973	1,061,109	166,609	2/ 62,787	1,164,931	14.3
1974	1,173,817	226,493	2/ 77,702	1,322,608	17.1
January-June--					
1974	601,098	89,558	2/ 34,957	655,699	13.7
1975	546,297	74,565	2/ 39,675	581,187	12.8
Nuts:					
1969	340,307	165,661	13,134	492,834	33.6
1970	298,284	176,062	11,691	462,655	38.1
1971	263,535	163,415	11,560	415,390	39.3
1972	303,089	194,812	17,690	480,211	40.6
1973	309,074	215,525	21,730	502,869	42.9
1974	312,173	301,613	31,802	581,984	51.8
January-June--					
1974	165,713	133,019	12,925	285,807	46.5
1975	126,160	113,651	21,086	218,725	52.0
Screws:					
1969	930,643	3/ 162,848	4/ 44,007	1,049,484	15.5
1970	863,138	3/ 196,932	4/ 42,541	1,017,529	19.4
1971	818,541	3/ 160,772	4/ 39,879	939,434	17.1
1972	946,608	3/ 219,224	4/ 52,802	1,113,030	19.7
1973	1,058,689	3/ 284,219	4/ 64,544	1,278,364	22.2
1974	1,055,103	3/ 382,795	4/ 77,760	1,360,138	28.1
January-June--					
1974	554,395	3/ 177,308	4/ 38,858	692,845	25.6
1975	388,035	127,489	4/ 34,127	481,397	26.5
Total:					
1969	2,324,667	451,761	112,648	2,663,780	17.0
1970	2,170,377	498,083	106,377	2,562,083	19.4
1971	2,016,790	453,091	99,113	2,370,768	19.1
1972	2,278,100	571,291	122,616	2,726,775	21.0
1973	2,428,872	666,353	149,061	2,946,164	22.6
1974	2,541,093	910,901	187,264	3,264,730	27.9
January-June--					
1974	1,321,206	399,885	86,740	1,634,351	24.5
1975	1,060,492	315,705	94,888	1,281,309	24.6

See footnotes at end of table.

Table 1.--Bolts, nuts, and screws of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by items, 1969-74, January-June 1974, and January-June 1975--Continued

(Quantity in thousands of pounds; value in thousands of dollars)

Item and period	Producers' shipments	Imports 1/	Exports	Apparent consumption	Ratio (percent) of imports to consumption
	Value				
Bolts:					
1969	373,292	16,860	2/ 23,829	366,323	4.6
1970	345,905	21,137	2/ 23,887	343,155	6.2
1971	325,925	22,066	2/ 23,348	324,643	6.8
1972	362,198	28,094	2/ 24,962	365,330	7.7
1973	421,537	39,266	2/ 31,677	429,126	9.2
1974	556,360	90,038	2/ 44,287	602,111	15.0
January-June--					
1974	280,243	30,989	2/ 19,111	292,121	10.6
1975	271,675	31,033	2/ 26,333	276,375	11.2
Nuts:					
1969	191,737	33,569	9,647	215,659	15.6
1970	172,028	41,611	8,684	204,955	20.3
1971	169,876	38,500	9,374	199,002	19.3
1972	202,825	51,255	11,322	242,758	21.1
1973	247,723	75,198	14,613	308,308	24.4
1974	333,517	185,646	22,536	496,627	37.4
January-June--					
1974	157,498	77,427	9,835	225,090	34.4
1975	156,613	57,461	12,461	201,613	28.5
Screws:					
1969	487,125	35,708	4/ 26,546	496,287	7.2
1970	470,600	46,666	4/ 27,622	489,644	9.5
1971	494,081	38,482	4/ 27,342	505,221	7.6
1972	591,632	59,905	4/ 33,270	618,267	9.7
1973	720,013	93,988	4/ 42,850	771,151	12.2
1974	863,478	178,144	4/ 58,194	983,428	18.1
January-June--					
1974	416,223	76,548	4/ 26,690	466,081	16.4
1975	356,027	57,032	4/ 28,827	384,232	14.8
Total:					
1969	1,052,154	86,137	60,022	1,078,269	8.0
1970	988,533	109,414	60,193	1,037,754	10.5
1971	989,882	99,048	60,064	1,028,866	9.6
1972	1,156,655	139,254	69,554	1,226,355	11.4
1973	1,389,273	208,452	89,140	1,508,585	13.8
1974	1,753,355	453,828	125,017	2,082,166	21.8
January-June--					
1974	853,964	184,964	55,636	983,292	18.8
1975	784,315	145,526	67,621	862,220	16.9

1/ Quantity does not include bolts, nuts, and screws imported free of duty from Canada under the Automotive Products Trade Act (APTA); quantity of such articles is not reported in the official statistics of the U.S. Department of Commerce. Value of imports includes bolts, nuts, and screws imported free of duty from Canada (APTA).

2/ Includes bolts, threaded rods and studs, and nuts if nuts and bolts are in the same shipment. It is estimated by the staff of the U.S. International Trade Commission that bolts of iron or steel accounted for approximately 90 percent of total exports.

3/ In official import statistics of the U.S. Department of Commerce, the majority of the TSUS items containing screws were reported in gross pieces during 1969-74; for these years, the staff converted the gross pieces into pounds.

4/ Includes screws, rivets, washers, and similar articles. It is estimated by the staff of the U.S. International Trade Commission that screws of iron or steel accounted for approximately 90 percent of total exports.

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

Table 2.--Bolts, nuts, and screws of iron or steel: U.S. shipments of imported fasteners, by types of steel, 1969-74, January-June 1974, and January-June 1975

Period	Carbon	Stainless	Alloy	Total
	Quantity (1,000 pounds)			
1969	418,158	5,650	10,866	434,674
1970	439,824	6,400	10,972	457,198
1971	449,112	4,634	9,733	463,480
1972	558,402	3,970	10,775	573,148
1973	642,337	5,870	11,089	659,297
1974	813,200	6,606	18,993	838,800
January-June--				
1974	385,884	2,740	5,872	394,497
1975	303,576	2,787	8,362	314,727
	Value (1,000 dollars)			
1969	100,613	5,469	7,862	113,945
1970	132,707	8,864	10,202	151,773
1971	133,669	6,467	8,787	148,923
1972	205,904	7,567	14,159	227,630
1973	283,738	12,950	17,380	314,068
1974	530,550	20,735	30,161	581,446
January-June--				
1974	258,902	7,979	11,006	277,887
1975	198,431	10,122	13,825	222,378

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

Note.--Data was estimated by the staff of the U.S. International Trade Commission from responses to Commission questionnaires from U.S. importers which accounted for approximately 75 percent of all imported fasteners in terms of quantity and 60 percent in terms of value.

Table 3.--Bolts, nuts, and screws of iron or steel: U.S. imports for consumption, by principal sources, 1969-74, January-June 1974, and January-June 1975

(In thousands of dollars)

Source	1969	1970	1971	1972	1973	1974	January-June--	
							1974	1975
Japan	48,554	71,407	63,896	92,095	137,893	315,167	126,847	90,054
Canada 1/	11,644	13,430	19,019	24,767	34,305	57,658	27,284	20,129
Ireland	4,497	3,574	1,987	3,648	5,142	6,964	3,366	1,518
Netherlands	1,927	2,104	1,501	1,694	3,589	6,042	2,656	4,307
West Germany	1,457	1,558	2,244	2,873	4,728	8,308	3,119	5,789
Italy	6,593	5,000	2,603	2,896	4,026	6,914	2,529	5,673
United Kingdom	2,727	2,294	1,630	3,085	3,798	8,480	3,704	3,622
Hong Kong	1,221	1,439	733	1,042	1,999	4,003	1,660	664
Spain	1,210	1,153	957	1,697	2,262	6,299	2,283	2,551
Taiwan	448	830	335	694	1,999	11,281	3,729	1,811
India	375	480	253	491	683	2,294	693	1,651
All other	5,484	6,145	3,890	4,272	8,028	20,418	7,094	7,757
Total	86,137	109,414	99,048	139,254	208,452	453,828	184,964	145,526

1/ Includes value of imports entering duty free from Canada as original motor-vehicle equipment.

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

Table 4.--Bolts of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by types, 1969-74, January-June 1974, and January-June 1975

(Quantity in thousands of pounds; value in thousands of dollars)

Type and period	Producers' shipments	Imports 1/ 2/	Exports 1/ 3/	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity				
Mine roof:					
1969	4/ 462,496	-	666	461,830	-
1970	4/ 448,052	-	782	447,270	-
1971	4/ 428,637	-	477	428,160	-
1972	4/ 452,715	-	1,355	451,360	-
1973	4/ 455,806	-	1,256	454,550	-
1974	4/ 541,311	-	311	541,000	-
January-June--					
1974	4/ 270,675	-	175	270,500	-
1975	4/ 265,270	-	170	265,100	-
Square and hex:					
1969	185,174	64,584	12,878	236,880	27.3
1970	188,489	56,040	11,941	232,588	24.1
1971	168,747	65,612	10,965	223,394	29.4
1972	186,261	74,853	11,728	249,386	30.0
1973	186,932	76,474	13,750	249,656	30.6
1974	162,164	76,781	13,365	225,580	34.0
January-June--					
1974	82,460	31,704	5,139	109,025	29.1
1975	83,639	30,423	12,645	101,417	30.0
Round head:					
1969	106,438	41,906	26,310	122,034	34.3
1970	96,580	47,158	23,935	119,803	39.4
1971	91,024	41,378	23,503	108,899	38.0
1972	107,666	41,673	27,938	121,401	34.3
1973	99,089	49,483	23,608	124,964	39.6
1974	115,263	65,230	33,256	147,237	44.3
January-June--					
1974	62,450	27,046	19,436	70,060	38.6
1975	49,087	21,624	10,553	60,158	35.9
High-strength structural:					
1969	83,492	4,313	9,492	78,313	5.5
1970	82,450	5,129	9,803	77,776	6.6
1971	71,332	8,379	7,103	72,608	11.5
1972	86,107	14,310	5,421	94,996	15.1
1973	99,548	16,161	19,590	96,119	16.8
1974	93,559	65,230	20,513	138,276	47.2
January-June--					
1974	43,089	20,688	5,482	58,295	35.5
1975	34,754	18,790	6,983	46,561	40.4

See footnotes at end of table.

Table 4.--Bolts of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by types, 1969-74, January-June 1974, and January-June 1975--Continued

(Quantity in thousands of pounds; value in thousands of dollars)

Type and period	Producers' shipments	Imports 1/ 2/	Exports 1/ 3/	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity--Continued				
Bent:					
1969	37,150	5,300	-	42,450	12.5
1970	33,750	6,505	-	40,255	16.2
1971	29,841	5,027	-	34,868	14.4
1972	32,400	12,266	-	44,666	27.5
1973	38,424	11,329	-	49,753	22.8
1974	42,878	10,645	-	53,523	19.9
January-June--					
1974	21,350	2,597	-	23,947	10.8
1975	20,530	1,566	-	22,096	7.1
Other:					
1969	178,967	7,149	6,161	179,955	4.0
1970	159,634	10,257	5,684	164,207	6.2
1971	145,133	8,508	5,626	148,015	5.7
1972	163,254	14,153	5,682	171,725	8.2
1973	181,310	13,162	4,583	189,889	6.9
1974	218,642	8,607	10,257	216,992	4.0
January-June--					
1974	121,074	7,523	4,725	123,872	6.1
1975	93,017	2,162	9,324	85,855	2.5
Total:					
1969	1,053,717	123,252	55,507	1,121,462	11.0
1970	1,008,955	125,089	52,145	1,081,899	11.6
1971	934,714	128,904	47,674	1,015,944	12.7
1972	1,028,403	157,255	52,124	1,133,534	13.9
1973	1,061,109	166,609	62,787	1,164,931	14.3
1974	1,173,817	226,493	77,702	1,322,608	17.1
January-June--					
1974	601,098	89,558	34,957	655,699	13.7
1975	546,297	74,565	39,675	581,187	12.8

See footnotes at end of table.

Table 4.--Bolts of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by types, 1969-74, January-June 1974, and January-June 1975--Continued

(Quantity in thousands of pounds; value in thousands of dollars)

Type and period	Producers' shipments	Imports 1/ 2/	Exports 1/ 3/	Apparent consumption	Ratio (percent) of imports to consumption
	Value				
Mine roof:					
1969	4/ 61,304	-	48	61,256	-
1970	4/ 58,217	-	72	58,145	-
1971	4/ 55,730	-	70	55,660	-
1972	4/ 64,825	-	125	64,700	-
1973	4/ 72,855	-	127	72,728	-
1974	4/ 113,654	-	44	113,610	-
January-June--					
1974	4/ 54,119	-	19	54,100	-
1975	4/ 63,664	-	40	63,624	-
Square and hex:					
1969	60,715	8,075	2,145	66,645	12.1
1970	58,261	8,475	2,413	64,323	13.2
1971	58,081	7,900	2,475	63,506	12.4
1972	63,514	11,771	3,719	71,566	16.4
1973	75,676	17,002	5,734	86,944	19.6
1974	98,403	25,842	5,137	119,108	21.7
January-June--					
1974	46,714	9,327	1,892	54,149	17.2
1975	53,809	9,869	5,306	58,372	16.9
Round head:					
1969	30,021	5,716	4,790	30,947	18.5
1970	28,171	7,673	4,777	31,067	24.7
1971	30,692	8,826	5,510	34,008	26.0
1972	32,755	8,428	9,186	31,997	26.3
1973	37,837	12,015	8,679	41,173	29.2
1974	53,576	26,921	12,312	68,185	39.5
January-June--					
1974	27,195	9,421	7,300	29,316	32.1
1975	26,621	9,000	4,292	31,329	28.7
High-strength structural:					
1969	23,933	1,484	1,620	23,797	6.2
1970	24,346	1,797	2,102	24,041	7.5
1971	20,890	2,273	1,728	21,435	10.6
1972	25,285	3,512	2,271	26,526	13.2
1973	39,385	4,241	8,838	34,788	12.2
1974	48,438	28,992	8,326	69,104	42.0
January-June--					
1974	20,647	9,328	2,153	27,822	33.5
1975	23,121	8,006	3,318	27,809	28.8

See footnotes at end of table.

Table 4.--Bolts of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by types, 1969-74, January-June 1974, and January-June 1975--Continued

(Quantity in thousands of pounds; value in thousands of dollars)

Type and period	Producers' shipments	Imports 1/ 2/	Exports 1/ 3/	Apparent consumption	Ratio (percent) of imports to consumption
	Value--Continued				
Bent:					
1969	9,287	270	-	9,557	2.8
1970	8,437	634	-	9,071	7.0
1971	7,460	750	-	8,210	9.1
1972	8,586	1,349	-	9,935	13.6
1973	10,758	1,924	-	12,682	15.2
1974	15,436	3,241	-	18,677	17.4
January-June--					
1974	7,472	651	-	8,123	8.0
1975	7,390	465	-	7,855	5.9
Other:					
1969	188,032	1,315	15,226	174,121	0.8
1970	168,473	2,558	14,523	156,508	1.6
1971	153,072	2,317	13,565	141,824	1.6
1972	167,233	3,034	9,661	160,606	1.9
1973	185,026	4,084	8,299	180,811	2.3
1974	226,853	5,042	18,468	213,427	2.4
January-June--					
1974	124,096	2,262	7,747	118,611	1.9
1975	97,070	3,693	13,377	87,386	4.2
Total:					
1969	373,292	16,860	23,829	366,323	4.6
1970	345,905	21,137	23,887	343,155	6.2
1971	325,925	22,066	23,348	324,643	6.8
1972	362,198	28,094	24,962	365,330	7.7
1973	421,537	39,266	31,677	429,126	9.2
1974	556,360	90,038	44,287	602,111	15.0
January-June--					
1974	280,243	30,989	19,111	292,121	10.6
1975	271,675	31,033	26,333	276,375	11.2

1/ Statistical data for the individual types of bolts were estimated by the staff of the U.S. International Trade Commission from responses to Commission questionnaires and official statistics of the U.S. Department of Commerce.

2/ Quantity does not include bolts imported free of duty from Canada (APTA); quantity of such articles is not reported in the official statistics of the U.S. Department of Commerce. Value includes bolts imported free of duty from Canada (APTA).

3/ Includes bolts, threaded rods and studs, and nuts if nuts and bolts are in the same shipment. It is estimated by the staff of the U.S. International Trade Commission that bolts of iron or steel accounted for approximately 90 percent of total exports.

4/ Estimated by the staff of the U.S. International Trade Commission.

Source: U.S. producers' shipments compiled from data submitted in response to questionnaires of the U.S. International Trade Commission, except as noted; imports and exports compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 5.--Nuts of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by types, 1969-74, January-June 1974, and January-June 1975

(Quantity in thousands of pounds; value in thousands of dollars)

Type and period	Producers' shipments	Imports 1/2/	Exports 1/	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity				
Square and hex:					
1969	205,498	153,237	7,079	351,656	43.6
1970	176,247	157,575	6,032	327,790	48.1
1971	142,756	145,766	4,451	284,071	51.3
1972	158,284	175,720	8,456	325,548	54.0
1973	132,094	170,480	8,670	293,904	58.0
1974	124,270	273,563	9,541	388,292	70.5
January-June--					
1974	61,538	122,244	3,632	180,150	67.9
1975	43,025	106,946	7,886	142,085	75.3
Locknuts:					
1969	97,425	7,289	5,228	99,486	7.3
1970	86,637	13,557	4,735	95,459	14.2
1971	80,056	9,805	5,884	83,977	11.7
1972	96,969	13,442	7,076	103,335	13.0
1973	120,141	17,673	10,952	126,862	13.9
1974	123,184	19,303	16,600	125,887	15.3
January-June--					
1974	64,083	7,183	5,764	65,502	11.0
1975	56,280	3,182	10,775	48,687	6.5
Other:					
1969	37,384	5,135	827	41,692	12.3
1970	35,400	4,930	924	39,406	12.5
1971	40,723	7,844	1,225	47,342	16.6
1972	47,836	5,650	2,158	51,328	11.0
1973	56,839	27,372	2,108	82,103	33.3
1974	64,719	8,747	5,661	67,805	12.9
January-June--					
1974	40,092	3,592	3,529	40,155	8.9
1975	26,855	3,523	2,425	27,953	12.6
Total:					
1969	340,307	165,661	13,134	492,834	33.6
1970	298,284	176,062	11,691	462,655	38.1
1971	263,535	163,415	11,560	415,390	39.3
1972	303,089	194,812	17,690	480,211	40.6
1973	309,074	215,525	21,730	502,869	42.9
1974	312,173	301,613	31,802	581,984	51.8
January-June--					
1974	165,713	133,019	12,925	285,807	46.5
1975	126,160	113,651	21,086	218,725	52.0

See footnotes at end of table.

Table 5.--Nuts of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by types, 1969-74, January-June 1974, and January-June 1975--Continued

(Quantity in thousands of pounds; value in thousands of dollars)

Type and period	Producers' shipments	Imports 1/2/	Exports 1/	Apparent consumption	Ratio (percent) of imports to consumption
	Value				
Square and hex:					
1969	69,546	27,158	3,858	92,846	29.3
1970	61,045	31,000	3,222	88,823	34.9
1971	52,641	28,567	3,365	77,843	36.7
1972	58,532	37,519	4,019	92,032	40.8
1973	66,208	53,466	4,589	11,085	46.5
1974	100,295	142,948	5,769	237,474	60.2
January-June--					
1974	47,133	61,786	2,872	106,047	58.3
1975	38,294	45,681	3,788	80,187	57.0
Locknuts:					
1969	101,452	3,625	5,654	99,423	3.6
1970	92,307	7,282	4,776	94,813	7.7
1971	95,160	4,004	5,090	94,074	4.3
1972	116,049	7,944	6,250	117,743	6.7
1973	145,476	12,483	8,943	149,016	8.4
1974	186,519	24,505	13,860	197,164	12.4
January-June--					
1974	85,562	8,440	6,088	87,914	9.6
1975	95,084	6,091	6,966	94,209	6.5
Other:					
1969	20,739	2,786	135	23,390	11.9
1970	18,676	3,329	686	21,319	15.6
1971	22,075	5,929	919	27,085	21.9
1972	28,244	5,792	1,053	32,983	17.6
1973	36,039	9,249	1,081	44,207	20.9
1974	46,703	18,193	2,907	61,989	29.3
January-June--					
1974	24,803	7,201	875	31,129	23.1
1975	23,235	5,689	1,707	27,217	20.9
Total:					
1969	191,737	33,569	9,647	215,659	15.6
1970	172,028	41,611	8,684	204,955	20.3
1971	169,876	38,500	9,374	199,002	19.3
1972	202,825	51,255	11,322	242,758	21.1
1973	247,723	75,198	14,613	308,308	24.4
1974	333,517	185,646	22,536	496,627	37.4
January-June--					
1974	157,498	77,427	9,835	225,090	34.4
1975	156,613	57,461	12,461	201,613	28.5

1/ Statistical data for the individual types of nuts were estimated by the staff of the U.S. International Trade Commission from responses to Commission questionnaires and official statistics of the U.S. Department of Commerce.

2/ Quantity does not include nuts imported free of duty from Canada (APTA); quantity of such articles is not reported in the official statistics of the U.S. Department of Commerce. Value includes nuts imported free of duty from Canada (APTA).

Source: U.S. producers' shipments compiled from data submitted in response to questionnaires of the U.S. International Trade Commission; imports and exports compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 6.--Large screws of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by types, 1969-74, January-June 1974, and January-June 1975

(Quantity in thousands of pounds; value in thousands of dollars)

Type and period	Producers' shipments	Imports 1/	Exports 1/ 2/	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity				
Cap:					
1969	422,866	3/ 57,081	16,503	463,444	12.3
1970	401,776	3/ 75,128	20,760	456,144	16.5
1971	367,629	3/ 69,137	16,470	420,296	16.4
1972	412,624	3/ 91,554	24,500	479,678	19.1
1973	442,928	3/125,857	28,916	539,869	23.3
1974	459,263	3/217,064	35,380	640,947	33.9
January-June--					
1974	241,897	3/ 94,495	21,722	314,670	30.0
1975	183,439	3/ 86,061	14,811	254,689	33.8
Socket:					
1969	26,684	5,783	792	31,675	18.3
1970	22,176	759	1,021	21,914	3.5
1971	17,696	628	638	17,686	3.6
1972	21,268	1,018	844	21,442	4.7
1973	25,193	1,400	839	25,754	5.4
1974	27,065	3,306	1,711	28,660	11.5
January-June--					
1974	13,630	1,732	544	14,818	11.7
1975	11,590	1,311	956	11,945	11.0
Lag:					
1969	7,060	6,859	44	13,875	49.4
1970	6,079	10,183	85	16,177	62.9
1971	5,705	6,364	39	12,030	52.9
1972	6,972	10,965	105	17,832	61.5
1973	6,553	15,370	5	21,918	70.1
1974	5,374	9,509	5	14,878	63.9
January-June--					
1974	2,915	4,920	3	7,832	62.8
1975	2,294	2,241	68	4,467	50.2
Other:					
1969	93,969	13,388	9,734	97,623	13.7
1970	78,467	13,470	4,228	87,709	15.4
1971	81,844	10,800	7,323	85,321	12.7
1972	96,224	18,590	8,137	106,677	17.4
1973	110,676	19,802	11,374	119,104	16.6
1974	92,970	18,457	12,818	98,609	18.7
January-June--					
1974	46,728	8,936	5,566	50,098	17.8
1975	35,969	5,859	5,770	36,058	16.2
Total:					
1969	550,579	83,111	27,073	606,617	13.7
1970	508,498	99,540	26,094	581,944	17.1
1971	472,874	86,929	24,470	535,333	16.2
1972	537,088	122,127	33,586	625,629	19.5
1973	585,350	162,429	41,134	706,645	23.0
1974	584,672	248,336	49,914	783,094	31.7
January-June--					
1974	305,170	110,083	27,835	387,418	28.4
1975	233,292	95,472	21,605	307,159	31.1

See footnotes at end of table.

Table 6.--Large screws of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by types, 1969-74, January-June 1974, and January-June 1975--Continued

(Quantity in thousands of pounds; value in thousands of dollars)

Type and period	Producers' shipments	Imports 1/	Exports 1/ 2/	Apparent consumption	Ratio (percent) of imports to consumption
	Value				
Cap:					
1969	142,197	4/ 13,346	5,389	150,154	8.9
1970	130,603	4/ 17,448	6,408	141,643	12.3
1971	143,162	4/ 17,675	6,617	154,220	11.5
1972	166,968	4/ 25,740	9,316	183,392	14.0
1973	197,327	4/ 39,976	11,869	225,434	17.7
1974	258,775	4/ 96,688	18,273	337,190	28.7
January-June--					
1974	123,478	4/ 38,646	8,087	154,037	25.1
1975	121,887	4/ 35,032	9,369	147,550	23.7
Socket:					
1969	42,658	1,018	2,734	40,942	2.5
1970	37,195	491	1,657	36,029	1.4
1971	33,454	445	1,422	32,477	1.4
1972	48,919	812	1,597	48,134	1.7
1973	48,816	1,288	1,585	48,519	2.7
1974	62,071	3,019	3,026	62,064	4.9
January-June--					
1974	28,912	1,398	934	29,376	4.8
1975	25,346	1,731	1,845	25,232	6.9
Lag:					
1969	3,054	1,152	40	4.166	27.7
1970	2,968	1,792	80	4,680	38.3
1971	3,165	1,050	54	4,161	25.2
1972	3,546	2,061	133	5,474	37.7
1973	3,763	3,689	15	7,437	49.6
1974	6,018	3,418	15	9,421	36.3
January-June--					
1974	2,182	1,617	8	3,791	42.7
1975	1,785	815	86	2,514	32.4
Other:					
1969	41,763	3,253	4,912	40,104	8.1
1970	40,121	3,421	4,732	38,810	8.8
1971	41,082	2,603	3,946	39,739	6.6
1972	49,033	5,484	4,231	50,286	10.9
1973	59,661	6,931	6,410	60,182	11.5
1974	64,690	9,413	7,595	66,508	14.2
January-June--					
1974	31,822	3,911	3,844	31,889	12.3
1975	30,103	3,409	3,989	29,523	11.5
Total:					
1969	229,672	18,769	13,075	235,366	8.0
1970	210,887	23,152	12,877	221,162	10.5
1971	220,863	21,773	12,039	230,597	9.4
1972	268,466	34,097	15,277	287,286	11.9
1973	309,567	51,884	19,879	341,572	15.2
1974	391,554	112,538	38,909	475,183	23.7
January-June--					
1974	186,394	45,572	12,873	219,093	20.8
1975	179,121	40,987	15,289	204,819	20.0

1/ Statistical data for the individual types of screws were estimated by the staff of the U.S. International Trade Commission from responses to Commission questionnaires and official statistics of the U.S. Department of Commerce.

2/ Includes screws, rivets, washers, and similar articles of iron or steel. It is estimated by the staff of the U.S. International Trade Commission that screws accounted for approximately 90 percent of total exports.

3/ Does not include cap screws imported free of duty from Canada (APTA); quantity of such articles is not reported in the official statistics of the U.S. Department of Commerce.

4/ Includes cap screws imported free of duty from Canada (APTA).

Source: U.S. producers' shipments compiled from data submitted in response to questionnaires of the U.S. International Trade Commission; imports and exports compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 7.--Small screws of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by types, 1969-74, January-June 1974, and January-June 1975

(Quantity in thousands of pounds; value in thousands of dollars)

Type and period	Producers' shipments	Imports 1/	Exports 1/	Apparent consumption	Ratio (percent) of imports to consumption
	Quantity				
Machine:					
1969	112,815	40,380	2,200	150,995	26.7
1970	106,639	45,318	3,361	148,596	30.5
1971	101,304	33,191	2,672	131,823	25.2
1972	115,777	37,103	4,805	148,075	25.1
1973	133,476	45,550	2,969	176,057	25.9
1974	139,025	58,053	5,599	191,479	30.3
January-June--					
1974	71,762	26,823	1,826	96,759	27.7
1975	41,127	11,906	2,798	50,235	23.7
Tapping:					
1969	189,410	18,591	8,229	199,772	9.3
1970	181,803	29,671	10,252	201,222	14.7
1971	175,882	23,424	7,816	191,490	12.2
1972	214,036	39,514	8,976	244,574	16.2
1973	250,143	51,604	12,844	288,903	17.9
1974	257,472	52,814	13,686	296,600	17.8
January-June--					
1974	139,079	27,609	5,479	161,209	17.1
1975	86,470	13,029	5,870	93,629	13.9
Wood:					
1969	15,193	17,074	15	32,252	52.9
1970	13,887	17,610	15	31,482	55.9
1971	13,918	13,455	39	27,334	49.2
1972	15,558	14,964	10	30,512	49.0
1973	15,937	17,866	15	33,788	52.9
1974	11,953	16,512	15	28,450	58.0
January-June--					
1974	7,233	9,105	8	16,330	55.8
1975	3,167	5,433	8	8,592	63.2
Other:					
1969	62,646	3,692	6,490	59,848	6.2
1970	52,311	4,793	2,819	54,285	8.8
1971	54,563	3,773	4,882	53,454	7.1
1972	64,149	5,516	5,425	64,240	8.6
1973	73,783	6,770	7,582	72,971	9.3
1974	61,981	7,080	8,546	60,515	11.7
January-June--					
1974	31,151	3,688	3,710	31,129	11.8
1975	23,979	1,649	3,846	21,782	7.6
Total:					
1969	380,064	79,737	16,934	442,867	18.0
1970	354,640	97,392	16,447	435,585	22.4
1971	345,667	73,843	15,409	404,101	18.3
1972	409,520	97,097	19,216	487,401	19.9
1973	473,339	121,790	23,410	571,719	21.3
1974	470,431	134,459	27,846	577,044	23.3
January-June--					
1974	249,225	67,225	11,023	305,427	22.0
1975	154,743	32,017	12,522	174,238	18.4

See footnotes at end of table.

Table 7.--Small screws of iron or steel: U.S. producers' shipments, imports for consumption, exports of domestic merchandise, and apparent consumption, by types, 1969-74, January-June 1974, and January-June 1975--Continued

(Quantity in thousands of pounds; value in thousands of dollars)

Type and period	Producers' shipments	Imports 1/	Exports 1/2/	Apparent consumption	Ratio (percent) of imports to consumption
	Value				
Machine:					
1969	69,232	5,741	849	74,124	7.7
1970	74,148	7,990	2,265	79,873	10.0
1971	76,860	5,577	2,734	79,703	7.0
1972	90,287	6,685	4,691	92,281	7.2
1973	109,817	11,919	2,914	118,822	10.0
1974	131,881	24,168	5,703	150,346	16.1
January-June--					
1974	61,363	10,404	2,189	69,578	15.0
1975	48,958	5,033	3,056	50,935	9.9
Tapping:					
1969	132,604	5,596	8,043	130,157	4.3
1970	133,891	9,317	8,066	135,142	6.9
1971	142,087	6,910	8,886	140,111	4.9
1972	170,563	13,040	9,382	174,221	7.5
1973	226,584	21,158	14,097	233,645	9.1
1974	261,700	29,549	16,527	274,722	10.8
January-June--					
1974	128,190	14,567	8,060	134,697	10.8
1975	95,211	7,572	6,774	96,009	7.9
Wood:					
1969	17,066	4,132	45	21,153	19.5
1970	14,638	4,491	45	19,084	23.5
1971	16,349	3,041	40	19,350	15.7
1972	17,054	3,951	14	20,991	18.8
1973	18,974	5,902	43	24,833	23.8
1974	18,630	7,492	45	26,077	28.7
January-June--					
1974	10,902	3,887	20	14,769	26.3
1975	4,949	2,343	25	7,267	32.2
Other:					
1969	38,551	1,470	4,534	35,487	4.1
1970	37,036	1,716	4,369	34,383	5.0
1971	37,922	1,181	3,643	35,460	3.3
1972	45,262	2,132	3,906	43,488	4.9
1973	55,071	3,125	5,917	52,279	6.0
1974	59,713	4,397	7,010	57,100	7.7
January-June--					
1974	29,374	2,118	3,548	27,944	7.6
1975	27,788	1,097	3,683	25,202	4.4
Total:					
1969	257,453	16,939	13,471	260,921	6.5
1970	259,713	23,514	14,745	268,482	8.8
1971	273,218	16,709	15,303	274,624	6.1
1972	323,166	25,808	17,993	330,981	7.8
1973	410,446	42,104	22,971	429,579	9.8
1974	471,924	65,606	29,285	508,245	12.9
January-June--					
1974	229,829	30,976	13,817	246,988	12.5
1975	176,906	16,045	13,538	179,413	8.9

1/ Statistical data for the individual types of screws were estimated by the staff of the U.S. International Trade Commission from responses to Commission questionnaires and official statistics of the U.S. Department of Commerce.

2/ Includes screws, rivets, washers, and similar articles of iron or steel. It is estimated by the staff that screws accounted for approximately 90 percent of total exports.

Source: U.S. producers' shipments compiled from data submitted in response to questionnaires of the U.S. International Trade Commission; imports and exports compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 8.--Bolts of iron or steel: U.S. imports for consumption, by principal sources, 1969-74, January-June 1974, and January-June 1975

Period	Japan	Canada 1/	Italy	United Kingdom	All other	Total or average 1/
	Quantity (1,000 pounds)					
1969	75,029	15,051	13,563	1,174	18,435	123,252
1970	82,472	17,214	5,849	845	18,709	125,089
1971	92,276	20,346	3,554	329	12,399	128,904
1972	113,386	24,815	3,587	490	14,977	157,255
1973	112,515	26,932	4,837	708	21,617	166,609
1974	154,669	30,173	5,503	1,844	34,304	226,493
January-June--						
1974	56,181	16,886	2,547	724	13,220	89,558
1975	44,788	7,760	4,345	1,681	15,991	74,565
	Value (1,000 dollars)					
1969	8,814	3,158	1,576	389	2,097	16,034
1970	12,423	3,899	880	366	2,590	20,158
1971	12,840	4,649	677	281	2,027	20,474
1972	16,414	5,438	685	695	2,742	25,974
1973	22,527	7,048	1,127	973	4,933	36,608
1974	59,324	13,030	1,755	1,717	11,496	87,322
January-June--						
1974	17,792	6,560	733	651	3,953	29,689
1975	16,286	3,901	2,207	1,305	6,334	30,033
	Unit value (per pound)					
1969	$0.12	$0.21	$0.12	$0.33	$0.11	$0.13
1970	.15	.23	.15	.43	.14	.16
1971	.14	.23	.19	.85	.16	.16
1972	.14	.22	.19	1.42	.18	.17
1973	.20	.26	.23	1.37	.23	.22
1974	.38	.43	.32	.93	.34	.39
January-June--						
1974	.32	.39	.29	.90	.30	.33
1975	.36	.50	.51	.78	.40	.40

1/ Does not include quantity and value of imports entering duty free from Canada as original motor-vehicle equipment; quantity of such articles is not reported in official statistics of the U.S. Department of Commerce. The value of such articles is estimated by the staff of the U.S. International Trade Commission to amount to the following:

1969	$0.8 million
1970	1.0 million
1971	1.6 million
1972	2.1 million
1973	2.7 million
1974	2.7 million
January-June--	
1974	1.3 million
1975	1.0 million

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 9.--Nuts of iron or steel: U.S. imports for consumption, by principal sources, 1969-74, January-June 1974, and January-June 1975

Period	Japan	Ireland	Netherlands	Canada 1/	West Germany	Taiwan	All other	Total or average 1/
	Quantity (1,000 pounds)							
1969	91,915	6,672	10,088	4,935	3,212	199	48,640	165,661
1970	109,708	10,641	10,109	5,946	3,326	287	36,045	176,062
1971	118,968	8,176	6,861	5,448	4,238	111	19,613	163,415
1972	151,810	8,769	7,742	5,486	4,876	282	15,847	194,812
1973	156,704	11,842	12,980	6,834	6,134	1,790	19,232	215,525
1974	204,366	8,560	16,100	8,724	11,535	13,216	39,112	301,613
January-June--								
1974	91,744	4,082	8,024	5,109	3,865	4,439	15,756	133,019
1975	76,190	1,722	8,859	1,567	10,472	1,955	12,886	113,651
	Value (1,000 dollars)							
1969	18,662	1,860	1,886	1,110	796	39	7,840	32,193
1970	25,968	2,535	2,063	1,544	873	66	6,931	39,980
1971	25,721	1,891	1,490	1,438	1,199	26	4,081	35,846
1972	36,195	2,274	1,647	1,611	1,401	51	4,543	47,722
1973	52,458	3,564	3,421	2,341	2,131	506	6,347	70,768
1974	133,495	4,974	5,864	5,533	4,625	7,534	19,095	181,120
January-June--								
1974	56,653	2,187	2,624	2,899	1,567	2,312	7,085	75,327
1975	37,669	1,097	3,995	1,156	3,967	746	7,131	55,761
	Unit value (per pound)							
1969	$0.20	$0.28	$0.19	$0.22	$0.25	$0.20	$0.16	$0.19
1970	.24	.24	.20	.26	.26	.23	.19	.23
1971	.22	.23	.22	.26	.28	.23	.21	.22
1972	.24	.26	.21	.29	.29	.18	.29	.25
1973	.33	.30	.26	.34	.35	.28	.33	.33
1974	.65	.58	.36	.63	.40	.57	.49	.60
January-June--								
1974	.62	.54	.34	.57	.41	.52	.45	.57
1975	.49	.64	.45	.74	.38	.38	.55	.49

1/ Does not include quantity and value of imports entering duty free from Canada as original motor-vehicle equipment; quantity of such articles is not reported in official statistics of the U.S. Department of Commerce. The value of such articles is estimated by the staff of the U.S. International Trade Commission to amount to the following:

1969	$1.4 million
1970	1.6 million
1971	2.7 million
1972	3.5 million
1973	4.4 million
1974	4.5 million
January-June--	
1974	2.1 million
1975	1.7 million

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 10.--Wood screws, excluding lag screws, of iron or steel: U.S. imports for consumption, by principal sources, 1969-74, Janaury-June 1974, and January-June 1975

Period	Japan	Hong Kong	Taiwan	India	All other	Total or average
	Quantity (1,000 gross pieces)					
1969	11,432	5,896	1,847	1,602	1,400	22,177
1970	9,939	6,080	2,346	1,833	1,021	21,219
1971	9,343	2,699	1,159	936	1,180	15,317
1972	8,551	3,508	1,879	1,829	1,102	16,869
1973	7,473	5,349	2,564	1,954	1,653	18,993
1974	6,267	5,209	2,806	1,932	1,604	17,818
January-June--						
1974	3,170	3,127	1,378	692	1,097	9,464
1975 1/	2,094	751	656	1,256	676	5,433
	Value (1,000 dollars)					
1969	2,003	1,091	222	352	464	4,132
1970	2,056	1,234	350	437	414	4,491
1971	1,667	517	149	216	492	3,041
1972	1,979	778	296	444	454	3,951
1973	2,589	1,560	587	508	658	5,902
1974	2,742	2,386	845	667	852	7,492
January-June--						
1974	1,440	1,288	460	210	489	3,887
1975	780	381	297	486	399	2,343
	Unit value (per gross pieces)					
1969	$0.18	$0.19	$0.12	$0.22	$0.33	$0.19
1970	.21	.20	.15	.24	.41	.21
1971	.18	.19	.13	.23	.42	.20
1972	.23	.22	.16	.24	.41	.23
1973	.35	.29	.23	.26	.40	.31
1974	.44	.46	.30	.35	.53	.42
January-June--						
1974	.45	.41	.33	.30	.45	.41
1975 1/	.37	.51	.45	.39	.59	.43

1/ Quantity is reported in thousands of pounds, therefore average value is shown in value per pound.

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

Table 11.--Machine screws of iron or steel: U.S. imports for consumption, by principal sources, 1969-74, January-June 1974, and January-June 1975

Period	Japan	West Germany	United Kingdom	All other	Total or average
	Quantity (1,000 pounds)				
1969	39,434	34	396	516	40,380
1970	43,020	44	1,003	1,251	45,318
1971	31,567	82	532	1,010	33,191
1972	35,237	85	670	1,111	37,103
1973	41,366	459	1,283	2,442	45,550
1974	52,322	270	257	5,204	58,053
January-June--					
1974	24,263	149	225	2,186	26,823
1975	10,007	70	1	1,828	11,906
	Value (1,000 dollars)				
1969	5,444	62	96	139	5,741
1970	7,455	72	235	228	7,990
1971	5,169	81	139	188	5,577
1972	6,155	112	179	239	6,685
1973	10,466	412	344	697	11,919
1974	21,347	354	137	2,330	24,168
January-June--					
1974	9,280	165	95	864	10,404
1975	4,017	137	23	856	5,033
	Unit value (per pound)				
1969	$0.14	$1.80	$0.24	$0.27	$0.14
1970	.17	1.63	.23	.18	.18
1971	.16	.99	.26	.19	.17
1972	.17	1.32	.27	.22	.18
1973	.25	.90	.27	.29	.26
1974	.41	1.31	.53	.45	.42
January-June--					
1974	.38	1.11	.42	.40	.39
1975	.40	1.96	23.00	.47	.42

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

Table 12.--Cap screws of iron or steel: 1/ U.S. imports for consumption, by principal sources, 1969-74, January-June 1974, and January-June 1975

Period	Japan	Canada 2/	Italy	Spain	All other	Total or average 2/
	Quantity (1,000 gross pieces)					
1969	9,536	543	1,921	823	1,714	14,537
1970	12,831	334	1,003	469	1,177	15,814
1971	10,835	516	241	155	675	12,422
1972	14,749	897	380	1,223	525	17,774
1973	17,330	1,462	572	686	741	20,791
1974	31,632	2,413	411	1,021	2,011	37,488
January-June--						
1974	12,532	1,170	244	320	699	14,965
1975 3/	66,264	13,133	3,520	1,347	3,308	87,572
	Value (1,000 dollars)					
1969	6,115	1,480	1,489	639	2,187	11,910
1970	10,324	1,170	1,163	595	1,453	14,705
1971	9,059	1,767	429	270	639	12,164
1972	12,959	2,917	760	1,037	1,083	18,756
1973	21,302	6,048	1,415	1,011	1,629	31,405
1974	61,070	19,148	1,955	2,989	4,798	89,960
January-June--						
1974	23,466	8,318	732	1,374	1,203	35,093
1975	21,952	7,154	1,367	535	1,845	32,853
	Unit value (per gross pieces)					
1969	$0.64	$2.73	$0.77	$0.78	$1.28	$0.82
1970	.80	3.50	1.16	1.27	1.23	.93
1971	.84	3.42	1.78	1.74	.95	.98
1972	.88	3.25	2.00	.85	2.06	1.06
1973	1.23	4.14	2.47	1.47	2.20	1.51
1974	1.93	7.94	4.76	2.93	2.39	2.40
January-June--						
1974	1.87	7.11	3.00	4.29	1.72	2.35
1975 3/	.33	.54	.39	.40	.56	.38

1/ Includes cap and socket screws.

2/ Does not include quantity and value of imports entering duty free from Canada as original motor-vehicle equipment; quantity of such articles is not reported in official statistics of the U.S. Department of Commerce. The value of such articles is estimated by the staff of the U.S. International Trade Commission to amount to the following: 1969, $3.3 million; 1970, $3.9 million; 1971, $6.4 million; 1972, $8.5 million; 1973, $10.6 million; 1974, $10.9 million; January-June 1974, $5.1 million; and January-June 1975, $4.1 million.

3/ Quantity is reported in thousands of pounds, therefore average value is shown in value per pound.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 13.--"All other" screws of iron or steel: 1/ U.S. imports for consumption, by principal sources, 1969-74, January-June 1974, and January-June 1975

Period	Japan	Ireland	United Kingdom	All other	Total or average
	Quantity (1,000 gross pieces)				
1969	43,323	808	492	2,812	47,435
1970	64,653	212	443	2,825	68,133
1971	46,369	24	666	4,366	51,425
1972	79,584	426	743	3,571	84,324
1973	97,684	633	839	5,848	105,004
1974	100,129	788	919	9,496	111,332
January-June--					
1974	52,532	537	519	4,567	58,155
1975 2/	19,690	143	348	2,396	22,577
	Value (1,000 dollars)				
1969	7,516	1,291	196	1,620	10,623
1970	13,181	514	324	1,546	15,565
1971	9,440	87	377	1,427	11,331
1972	18,393	1,116	539	1,986	22,034
1973	28,551	1,434	749	3,395	34,129
1974	37,189	1,724	960	5,789	45,662
January-June--					
1974	18,215	1,072	407	2,310	22,004
1975	9,350	320	568	2,397	12,635
	Unit value (per gross pieces)				
1969	$0.17	$1.60	$0.40	$0.58	$0.22
1970	.20	2.42	.73	.55	.23
1971	.20	3.63	.57	.33	.22
1972	.23	2.62	.73	.56	.26
1973	.29	2.27	.89	.58	.33
1974	.37	2.19	1.04	.61	.41
January-June--					
1974	.35	2.00	.78	.51	.38
1975 2/	.47	2.24	1.63	1.00	.56

1/ Includes lag, tapping, and all other screws. Excludes wood, machine, cap and socket screws.

2/ Quantity is reported in thousands of pounds, therefore average value is shown in value per pound.

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

Table 14.--Bolts, nuts, and screws of iron or steel: U.S. imports for consumption, by TSUS item numbers, 1/ 1964-74, January-June 1974, and January-June 1975

Period	Item 646.49	Item 646.54	Item 646.56	Item 646.58	Item 646.60	Item 646.63	Item 646.79	Total or average
	Quantity (1,000 pounds)							
1964	2/ 15,561	79,676	62,536	17,400	2/ 2,476	2/ 19,951	3/	197,600
1965	2/ 17,609	101,468	107,545	29,461	2/ 5,779	2/ 30,357	3/	292,219
1966	2/ 18,643	92,728	115,176	28,484	2/ 9,779	2/ 39,835	3/	304,645
1967	2/ 13,461	117,890	126,865	23,793	2/ 14,013	2/ 44,536	3/	340,558
1968	2/ 18,701	121,920	126,354	34,514	2/ 15,841	2/ 57,688	3/	375,018
1969	2/ 23,932	123,252	165,661	40,380	2/ 22,284	2/ 76,252	3/	451,761
1970	2/ 27,793	125,089	176,062	45,318	2/ 34,464	2/ 89,357	3/	498,083
1971	2/ 19,819	128,904	163,415	33,191	2/ 27,197	2/ 80,565	3/	453,091
1972	2/ 25,929	157,255	194,812	37,103	2/ 45,080	2/ 111,112	3/	571,291
1973	2/ 33,256	166,609	215,525	45,550	2/ 58,355	2/ 147,058	3/	666,353
1974	2/ 26,021	226,493	301,613	58,053	2/ 59,893	2/ 238,828	3/	910,901
Jan.-June--								
1974	2/ 14,024	89,558	133,019	26,823	2/ 31,297	2/ 105,164	3/	399,885
1975	7,675	74,565	113,651	11,906	14,678	93,230	3/	315,705
	Value (1,000 dollars)							
1964	3,012	8,809	12,237	1,996	1,048	3,254	3/	30,356
1965	3,596	11,839	20,725	3,374	1,616	4,725	18	45,893
1966	3,452	11,597	23,234	3,265	2,798	5,990	831	50,336
1967	2,935	15,135	26,343	3,031	3,807	8,119	1,780	61,150
1968	3,994	15,275	25,808	4,394	4,778	10,481	4,376	69,106
1969	5,284	16,034	32,193	5,741	7,064	14,317	5,504	86,137
1970	6,283	20,158	39,980	7,990	11,018	17,460	6,525	109,414
1971	4,091	20,474	35,846	5,577	8,122	14,323	10,615	99,048
1972	6,012	25,974	47,722	6,685	15,194	23,535	14,132	139,254
1973	9,591	36,608	70,768	11,919	24,246	37,599	17,721	208,452
1974	10,909	87,322	181,120	24,168	33,983	98,222	18,104	453,828
Jan.-June--								
1974	5,504	29,689	75,327	10,404	17,176	38,304	8,560	184,964
1975	3,158	30,033	55,761	5,033	8,669	36,004	6,868	145,526
	Unit value (per pound)							
1964	$0.19	$0.11	$0.20	$0.11	$0.42	$0.16	-	$0.15
1965	.20	.12	.19	.11	.28	.16	-	4/ .16
1966	.19	.13	.20	.11	.29	.15	-	4/ .17
1967	.22	.13	.21	.13	.27	.18	-	4/ .18
1968	.21	.13	.20	.13	.30	.18	-	4/ .18
1969	.22	.13	.19	.14	.32	.19	-	4/ .19
1970	.23	.16	.23	.18	.32	.20	-	4/ .22
1971	.21	.16	.22	.17	.30	.18	-	4/ .22
1972	.23	.17	.25	.18	.34	.21	-	4/ .24
1973	.29	.22	.33	.26	.42	.26	-	4/ .31
1974	.42	.39	.60	.42	.57	.41	-	4/ .50
Jan.-June--								
1974	.39	.33	.57	.39	.55	.36	-	4/ .46
1975	.41	.40	.49	.42	.56	.39	-	4/ .46

1/ TSUS item 646.49--Wood screws including lag screws.
TSUS item 646.54--Bolts and bolts and their nuts imported in same shipment.
TSUS item 646.56--Nuts.
TSUS item 646.58--Machine screws.
TSUS item 646.60--Other screws, having shanks or threads not over 0.24 inches in diameter, including cap screws.
TSUS item 646.63--Other screws, having shanks or threads over 0.24 inches in diameter, including cap screws.
TSUS item 646.79--Any article described in the foregoing, if Canadian article and original motor-vehicle equipment.

2/ Originally reported in official statistics in gross pieces; converted to pounds by the staff of the U.S. International Trade Commission.

3/ Not reported in official statistics of the U.S. Department of Commerce.

4/ Average value per pound is slightly overstated since the quantity for TSUS item 646.79 is not recorded in the total.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Table 15.--Bolts, nuts, and screws of iron or steel: U.S. producers' shipments, by types of steel, 1969-74, January-June 1974, and January-June 1975 1/

Period	Carbon	Stainless	Alloy	Total
	Quantity (1,000 pounds)			
1969	1,932,458	17,501	262,492	2,212,451
1970	1,822,083	16,751	225,726	2,064,560
1971	1,694,592	14,921	208,483	1,917,996
1972	1,901,052	17,101	238,488	2,156,641
1973	2,006,821	18,241	255,468	2,280,530
1974	2,044,996	18,210	289,774	2,352,980
January-June--				
1974	1,070,767	9,546	154,329	1,234,642
1975	825,673	7,251	132,850	965,774
	Value (1,000 dollars)			
1969	750,152	65,161	176,867	992,180
1970	702,166	60,913	165,338	928,417
1971	711,348	61,191	157,349	929,888
1972	831,625	71,568	184,033	1,087,226
1973	993,408	73,644	233,208	1,300,260
1974	1,234,552	90,833	302,997	1,628,382
January-June--				
1974	604,847	44,653	148,847	798,347
1975	520,799	32,652	163,263	716,714

1/ Does not include exports by U.S. producers.

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

Table 16.--Bolts, nuts, and screws of iron or steel: Intracompany shipments by U.S. producers of U.S.-made fasteners, by types, 1969-74, January-June 1974, and January-June 1975

(In thousands of pounds)

Type	1969	1970	1971	1972	1973	1974	January-June--	
							1974	1975
Bolts:								
Mine roof	***	***	***	***	***	***	***	***
Square and hex	65,454	62,307	63,190	76,579	72,468	57,525	30,773	24,393
Plow, track, and other round head	5,179	5,346	4,502	6,507	7,105	7,906	4,600	3,661
High-strength structural	***	***	***	***	***	***	***	***
Bent	***	***	***	***	***	***	***	***
All other bolts	15,348	13,692	13,907	15,571	15,848	14,294	7,624	6,137
Total	102,849	98,965	95,627	116,968	114,008	97,756	52,716	45,267
Nuts:								
Square and hex	***	***	***	***	***	***	***	***
Locknuts	***	***	***	***	***	1,175	836	336
Other nuts	***	***	***	***	***	***	***	***
Total	5,775	5,884	4,984	6,577	9,781	11,303	7,007	3,350
Screws, large: 1/								
Cap	8,140	8,240	8,425	11,068	12,498	13,457	8,532	6,574
Socket	***	***	***	***	***	***	***	***
Lag	***	***	***	***	***	***	***	***
Other	***	***	***	***	***	***	***	***
Total	10,221	10,122	9,878	12,882	14,568	15,768	9,710	7,322
Total, all types	118,845	114,971	110,489	136,427	138,357	124,827	69,433	55,939

1/ There were no shipments of small screws during the period shown.

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

Table 17--Bolts, nuts, and screws of iron or steel: 1/ U.S. exports of domestic merchandise, by principal markets, 1969-1974, January-June 1974, and January-June 1975

Period	Canada	United Kingdom	Japan	Mexico	West Germany	France	All other	Total or average
	Quantity (1,000 pounds)							
1969	91,808	1,238	1,100	1,706	506	492	15,798	112,648
1970	83,519	2,169	740	1,564	723	386	17,276	106,377
1971	82,482	1,520	616	1,080	566	246	12,603	99,113
1972	107,196	1,250	1,196	1,306	475	583	10,610	122,616
1973	129,706	1,997	1,019	2,815	578	355	12,591	149,061
1974	160,350	2,576	1,032	2,866	1,027	369	19,044	187,264
January-June--								
1974	75,275	1,138	521	1,395	513	208	7,690	86,740
1975	80,793	993	327	1,595	324	166	10,690	94,888
	Value (1,000 dollars)							
1969	40,302	3,201	1,489	1,514	1,273	1,157	11,086	60,022
1970	37,352	4,118	1,473	1,254	1,623	1,364	13,009	60,193
1971	39,670	3,495	1,256	813	1,332	1,546	11,952	60,064
1972	49,176	3,292	1,413	1,172	1,647	2,285	10,569	69,554
1973	60,530	6,089	2,650	1,923	1,920	1,834	14,194	89,140
1974	79,790	8,112	4,039	2,493	3,068	3,117	24,398	125,017
January-June--								
1974	36,413	3,558	1,538	1,198	1,473	1,144	10,312	55,636
1975	40,320	4,361	1,074	1,665	1,261	1,703	17,237	67,621
	Unit value (per pound)							
1969	$0.44	$2.59	$1.35	$0.89	$2.52	$2.35	$0.70	$0.53
1970	.45	1.90	1.99	.80	2.24	3.53	.75	.57
1971	.48	2.30	2.04	.75	2.35	6.28	.95	.61
1972	.46	2.63	1.18	.90	3.47	3.92	1.00	.57
1973	.47	3.05	2.60	.68	3.32	5.17	1.13	.60
1974	.50	3.15	3.91	.87	2.99	8.45	1.28	.67
January-June--								
1974	.48	3.13	2.95	.86	2.87	5.50	1.34	.64
1975	.50	4.39	3.28	1.04	3.89	10.26	1.61	.71

1/ Includes bolts, nuts, and screws as well as threaded rods and studs, rivets, washers, and similar articles or iron or steel; it is estimated by the staff of the U.S. International Trade Commission that bolts, nuts, and screws accounted for approximately 90 percent of total exports.

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

Table 18.--Bolts and threaded rods and studs, including nuts, if nuts and bolts are in the same shipment, of iron or steel: 1/ U.S. exports of domestic merchandise, by principal markets, 1969-74, January-June 1974, and January-June 1975

Period	Canada	United Kingdom	Mexico	France	All other	Total or average
	Quantity (1,000 pounds)					
1969	41,757	305	961	215	12,269	55,507
1970	38,089	794	856	107	12,299	52,145
1971	37,377	649	606	57	8,985	47,674
1972	43,844	227	620	91	7,342	52,124
1973	53,947	604	978	44	7,214	62,787
1974	63,169	750	1,170	86	12,527	77,702
January-June--						
1974	29,642	301	706	43	4,265	34,957
1975	32,041	300	469	24	6,841	39,675
	Value (1,000 dollars)					
1969	15,598	622	529	456	6,624	23,829
1970	14,788	834	539	340	7,386	23,887
1971	15,716	729	293	488	6,122	23,348
1972	18,151	477	400	1,043	4,891	24,962
1973	22,954	1,776	610	602	5,735	31,677
1974	29,121	1,917	880	419	11,950	44,287
January-June--						
1974	13,436	711	470	153	4,341	19,111
1975	16,049	959	524	129	8,672	26,333
	Unit value (per pound)					
1969	$0.37	$2.04	$0.55	$2.12	$0.54	$0.43
1970	.39	1.05	.63	3.18	.60	.46
1971	.42	1.12	.48	8.56	.68	.49
1972	.41	2.10	.65	11.46	.67	.48
1973	.43	2.94	.62	13.68	.80	.50
1974	.46	2.56	.75	4.87	.95	.57
January-June--						
1974	.45	2.36	.67	3.56	1.02	.55
1975	.50	3.20	1.12	5.38	1.27	.66

1/ It is estimated by the staff of the U.S. International Trade Commission that bolts accounted for approximately 90 percent of total exports.

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

Table 19.--Nuts of iron or steel: U.S. exports of domestic merchandise, by principal markets, 1969-74, January-June 1974, and January-June 1975

Period	Canada	United Kingdom	Mexico	Japan	All other	Total or average
	Quantity (1,000 pounds)					
1969	11,643	271	312	67	841	13,134
1970	9,395	445	196	66	1,589	11,691
1971	10,293	298	109	38	822	11,560
1972	16,284	243	328	53	782	17,690
1973	18,945	388	1,068	147	1,182	21,730
1974	29,913	424	471	81	913	31,802
January-June--						
1974	12,067	186	217	53	402	12,925
1975	19,672	260	271	130	753	21,086
	Value (1,000 dollars)					
1969	6,863	927	506	187	1,164	9,647
1970	5,426	1,353	151	247	1,507	8,684
1971	6,632	1,269	106	156	1,211	9,374
1972	8,250	1,367	239	157	1,309	11,322
1973	9,476	2,024	506	499	2,108	14,613
1974	15,015	2,915	409	527	3,670	22,536
January-June--						
1974	6,740	1,277	158	318	1,342	9,835
1975	7,712	1,847	338	149	2,415	12,461
	Unit value (per pound)					
1969	$0.59	$3.42	$1.62	$2.79	$1.38	$0.73
1970	.58	3.04	.77	3.74	.95	.74
1971	.64	4.26	.97	4.10	1.47	.81
1972	.51	5.63	.73	2.96	1.67	.64
1973	.50	5.22	.47	3.39	1.78	.67
1974	.50	6.88	.87	6.50	4.02	.71
January-June--						
1974	.56	6.87	.73	6.00	3.34	.76
1975	.39	7.10	1.25	1.15	3.21	.59

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

Table 20.--Screws, rivets, washers, and similar articles of iron or steel: 1/ U.S. exports of domestic merchandise, by principal markets, 1969-74, January-June 1974, and January-June 1975

Period	Canada	United Kingdom	Japan	West Germany	Mexico	All other	Total or average
	Quantity (1,000 pounds)						
1969	38,408	662	260	304	433	3,940	44,007
1970	36,035	930	402	439	512	4,223	42,541
1971	34,812	573	356	387	365	3,386	39,879
1972	47,068	780	366	296	358	3,934	52,802
1973	56,814	1,005	664	349	769	4,943	64,544
1974	67,268	1,402	636	692	1,225	6,537	77,760
Jan.-June--							
1974	33,567	651	361	350	472	3,457	38,858
1975	29,080	433	133	184	855	3,442	34,127
	Value (1,000 dollars)						
1969	17,841	1,652	595	914	479	5,065	26,546
1970	17,138	1,931	852	1,289	564	5,848	27,622
1971	17,322	1,497	718	1,089	414	6,302	27,342
1972	22,775	1,448	954	1,205	533	6,355	33,270
1973	28,100	2,289	1,758	1,328	807	8,568	42,850
1974	35,654	3,280	2,321	2,422	1,204	13,313	58,194
Jan.-June--							
1974	16,237	1,570	988	1,228	570	6,097	26,690
1975	16,559	1,555	622	833	803	8,405	28,827
	Unit value (per pound)						
1969	$0.46	$2.50	$2.29	$3.01	$1.11	$1.29	$0.60
1970	.48	2.08	2.12	2.94	1.10	1.38	.65
1971	.50	2.61	2.02	2.81	1.13	1.86	.69
1972	.48	1.86	2.61	4.07	1.49	1.62	.63
1973	.49	2.28	2.65	3.81	1.05	1.73	.66
1974	.53	2.34	3.65	3.50	.98	2.04	.75
Jan.-June--							
1974	.48	2.41	2.74	3.51	1.21	1.76	.69
1975	.57	3.59	4.68	4.80	.94	2.44	.85

1/ It is estimated by the staff of the U.S. International Trade Commission that screws accounted for approximately 90 percent of total exports.

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

Table 21.--Bolts, nuts, and screws of iron or steel: Inventories of U.S.-made fasteners, by types, as of Dec. 31, 1969-74, June 30, 1974, and June 30, 1975

(In thousands of pounds)

Type	Dec. 31--						June 30--	
	1969	1970	1971	1972	1973	1974	1974	1975
Bolts:								
Mine roof	32,328	40,254	34,252	22,568	27,273	37,870	29,755	26,510
Square and hex	29,290	31,778	25,245	22,689	24,245	26,783	18,557	32,657
Plow, track, and other round head	24,839	31,237	24,982	28,702	19,625	22,141	17,635	20,037
High-strength structural	14,060	15,982	14,772	14,523	9,594	12,417	9,025	18,051
Bent	3,810	4,210	3,720	3,425	3,224	3,510	3,125	4,320
All other bolts	24,192	26,171	37,666	26,787	24,741	27,090	18,615	31,803
Total bolts	128,519	149,632	140,637	118,694	108,702	117,394	96,712	133,378
Nuts:								
Square and hex	59,525	68,086	59,471	67,422	44,432	48,186	41,113	61,141
Locknuts	17,517	22,932	26,701	26,967	20,745	21,316	18,662	19,567
Other nuts	2,193	2,413	2,764	3,197	2,736	3,536	4,387	4,641
Total nuts	79,235	93,431	88,936	97,586	67,913	73,038	64,162	85,349
Screws:								
Large:								
Cap	85,336	95,254	84,278	85,387	57,961	50,841	50,640	82,667
Socket	5,437	6,134	5,117	5,310	4,870	5,831	4,841	5,104
Lag	2,946	3,176	2,606	2,678	2,160	2,630	2,125	2,470
Other	16,467	17,668	17,102	19,819	15,192	24,312	21,403	25,191
Total	110,186	122,232	109,103	113,194	80,183	83,614	79,009	115,432
Small:								
Machine	23,229	28,917	30,575	26,633	26,101	30,687	25,778	26,147
Tapping	32,612	36,025	36,974	36,910	35,594	41,443	36,736	37,240
Wood	5,464	4,439	4,163	4,042	3,502	2,984	3,323	3,443
Other	15,822	16,975	16,431	16,883	12,942	13,091	11,525	13,564
Total	77,127	86,356	88,143	84,468	78,139	88,205	77,362	80,394
Total screws	187,313	208,588	197,246	197,662	158,322	171,819	156,371	195,826
Total, all types	395,067	451,651	426,819	413,942	334,937	362,251	317,245	414,553

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

Table 22.--Average number of persons employed in U.S. establishments in which bolts, nuts, and screws of iron or steel were produced, 1969-74, January-June 1974, and January-June 1975

Item	1969	1970	1971	1972	1973	1974	January-June--	
							1974	1975
Total, all employees	55,009	52,101	49,518	51,375	53,964	54,284	54,590	48,120
Production and related workers engaged in the production of--								
All products	43,233	41,191	39,416	41,362	43,322	43,667	44,318	37,804
Fasteners:								
Bolts, nuts, and large screws	20,232	18,746	17,210	16,858	17,536	17,390	17,698	15,287
Small screws	10,697	10,275	10,141	10,938	11,121	11,517	11,634	8,822
Total	30,929	29,021	27,351	27,796	28,657	28,907	29,332	24,109

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

Table 23.--Man-hours expended by production and related workers in U.S. establishments in which bolts, nuts, and screws of iron or steel were produced, 1969-74, January-June 1974, and January-June 1975

(In thousands of man-hours)

Item	1969	1970	1971	1972	1973	1974	January-June--	
							1974	1975
Production and related workers employed on--								
All products	93,880	86,010	80,205	90,300	95,235	95,285	46,687	37,857
Fasteners:								
Bolts, nuts, and large screws	45,220	39,073	35,775	37,211	38,519	38,663	18,617	15,457
Small screws	21,854	21,547	20,536	23,081	24,386	24,640	12,325	7,845
Total	67,074	60,620	56,311	60,292	62,905	63,303	30,942	23,302

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

Table 24.--Wholesale price indexes of nuts and cap screws for January and July, 1965-1975

(Annual average, 1965 = 100)

Period	Nuts	Cap Screws
1965:		
January	95.0	97.5
July	100.5	100.8
1966:		
January	100.5	99.7
July	105.3	102.5
1967:		
January	109.6	104.7
July	109.1	104.7
1968:		
January	109.1	104.7
July	115.0	108.6
1969:		
January	123.9	111.5
July	123.3	115.3
1970:		
January	131.8	121.8
July	137.1	127.7
1971:		
January	135.3	128.1
July	135.3	128.1
1972:		
January	135.3	128.1
July	142.1	132.5
1973:		
Janaury	146.0	132.5
July	153.3	142.0
1974:		
January	153.3	n.a.
July	222.2	163.3
1975:		
January	242.4	192.3
July	241.4	192.7

Source: Derived from published and unpublished statistics supplied by the Bureau of Labor Statistics.

Table 25.--Bolts, nuts, and screws of iron or steel: Lowest net selling prices received by U.S. producers and importers 1/ on sales of selected fasteners to distributors, by types and by specified periods, January 1972-June 1975 2/

(Per thousand pieces)

Period	Cap screws							
	Grade 2, 3/8" - 16 x 1"				Grade 8, 3/8" - 16 x 1"			
	Domestic		Imported		Domestic		Imported	
	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average
1972:								
January-June	$9.08-$24.50	$10.80	$6.20-$15.31	$7.94	$23.64-$31.50	$25.15		
July-December	9.28- 24.50	11.05	6.98- 9.80	8.04	20.28- 26.90	24.84	3/	3/
1973:								
January-March	9.45- 24.50	11.77	7.85- 19.80	11.62	22.95- 33.71	28.80	3/	3/
April-June	9.58- 24.50	11.62	9.37- 19.80	10.67	26.07- 37.44	29.06	***	***
July-September	11.11- 24.50	12.23	7.42- 19.80	11.73	26.55- 37.44	29.05	***	***
October-December	10.80- 24.50	12.52	10.40- 19.80	14.28	26.94- 37.44	29.01	***	***
1974:								
January-March	11.27- 24.50	12.91	12.89- 24.80	16.48	30.60- 38.72	31.93	***	***
April-June	12.40- 51.00	17.70	15.10- 24.80	18.47	34.43- 62.40	36.02	***	***
July-September	18.20- 51.00	22.14	14.95- 24.80	20.67	38.25- 65.52	39.52	***	***
October-December	18.92- 51.00	22.92	14.75- 33.53	18.28	31.80- 48.53	42.40	***	***
1975:								
January-March	23.46- 51.00	25.41	13.33- 33.53	15.82	33.65- 48.53	40.40	***	***
April-June	23.44- 51.00	24.53	12.38- 33.53	15.55	28.94- 48.53	40.67	***	***

Period	Bolts							
	Structural bolt, A325, with nut, 3/4" x 2"				Carriage bolt, 3/8" x 3"			
	Domestic		Imported		Domestic		Imported	
	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average
1972:								
January-June	$134.48-$165.20	$164.80	***	***	$20.24-$28.01	$26.80	$13.50-$30.00	$15.10
July-December	141.81- 178.00	162.32	***	***	18.41- 28.01	26.89	16.56- 30.00	19.12
1973:								
January-March	146.92- 178.00	176.62	***	***	20.88- 35.40	27.64	16.54- 39.20	18.41
April-June	152.16- 188.80	185.92	170.81- 182.00	176.48	20.55- 35.40	26.91	22.11- 39.20	25.84
July-September	166.16- 188.80	186.02	***	***	25.90- 35.40	28.09	20.11- 39.20	27.74
October-December	169.65- 188.80	184.77	***	***	24.35- 38.01	28.29	27.12- 40.00	35.35
1974:								
January-March	189.57- 236.00	217.21	257.89- 410.11	259.37	27.84- 35.52	29.28	31.80- 53.80	33.83
April-June	215.09- 282.50	258.42	254.27- 343.00	284.17	28.01- 44.00	31.26	33.27- 53.80	46.66
July-September	280.60- 369.50	342.06	294.00- 366.81	344.27	28.01- 53.25	39.20	33.08- 53.80	41.17
October-December	272.55- 408.60	339.23	256.00- 366.84	339.22	39.32- 53.40	48.97	34.02- 66.20	42.34
1975:								
January-March	258.03- 357.00	316.43	251.00- 397.20	314.32	39.22- 53.40	45.11	25.47- 66.20	30.01
April-June	316.07- 403.85	334.35	234.82- 397.20	268.50	39.22- 53.40	51.18	22.63- 66.20	28.12

See footnotes at end of table.

Table 25.--Bolts, nuts, and screws of iron or steel: Lowest net selling prices received by U.S. producers and importers 1/ on sales of selected fasteners to distributors, by types and by specified periods, January 1972-June 1975 2/--Continued

(Per thousand pieces)

Period	Nuts							
	Hexagon nut, 1/4" - 20				Hexagon nut, 1/2" - 13			
	Domestic		Imported		Domestic		Imported	
	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average
1972:								
January-June	$2.49-$6.97	$3.42	$1.27-$6.00	$1.89	$9.36-$25.90	$11.10	$6.41-$20.00	$8.77
July-December	2.61- 6.97	3.06	1.45- 5.50	2.07	9.70- 25.90	11.01	6.82- 18.00	8.55
1973:								
January-March	2.61- 7.20	4.21	1.57- 6.00	2.89	9.82- 25.90	12.62	6.99- 23.50	10.01
April-June	2.81- 7.20	4.17	1.65- 6.00	2.55	10.40- 25.90	12.09	6.99- 25.62	10.85
July-September	3.15- 7.20	4.23	1.76- 6.49	3.00	11.43- 25.90	13.28	7.02- 23.50	11.50
October-December	3.22- 8.10	4.10	2.63- 6.80	4.05	11.66- 32.40	13.27	7.09- 26.00	16.64
1974:								
January-March	3.47- 8.10	4.73	2.71-14.70	5.89	13.48- 32.40	17.95	7.09- 42.50	25.47
April-June	3.44-18.00	5.56	2.75-14.70	7.14	14.20- 72.50	22.59	7.09- 42.50	27.98
July-September	5.40-18.00	7.43	2.65-14.70	5.17	14.20- 72.50	27.73	7.09- 51.00	22.93
October-December	5.75-18.00	6.76	1.89- 9.00	3.12	18.90- 72.50	25.32	10.35- 44.40	15.63
1975:								
January-March	5.75-18.00	8.07	1.36-10.00	2.08	18.90- 72.50	26.11	8.80- 37.80	11.36
April-June	5.64-18.00	8.06	1.46-10.00	2.35	18.90- 72.50	22.89	9.85- 37.80	11.43

Period	Stainless steel items							
	Hexagon nut, 1/4" - 20				Machine screw, 1/4" - 20 x 1"			
	Domestic		Imported		Domestic		Imported	
	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average
1972:								
January-June	***	***	$8.40-$13.10	$8.45	***	***	***	***
July-December	***	***	7.60- 10.29	8.60	***	***	***	***
1973:								
January-March	***	***	7.65- 30.40	9.52	***	***	***	***
April-June	***	***	9.75- 30.40	10.50	***	***	***	***
July-September	***	***	12.21- 30.40	13.31	***	***	***	***
October-December	***	***	11.00- 31.20	12.97	***	***	***	***
1974:								
January-March	***	***	13.10- 31.90	15.07	***	***	***	***
April-June	***	***	14.25- 34.50	18.56	***	***	***	***
July-September	***	***	14.75- 41.40	17.54	***	***	***	***
October-December	***	***	12.50- 41.40	15.29	***	***	***	***
1975:								
January-March	***	***	10.75- 18.50	14.52	***	***	***	***
April-June	***	***	11.20- 15.04	11.81	***	***	***	***

See footnotes at at end of table.

Table 25.--Bolts, nuts, and screws of iron or steel: Lowest net selling prices received by U.S. producers and importers 1/ on sales of selected fasteners to distributors, by types and by specified periods, January 1972-June 1975 2/--Continued

(Per thousand pieces)

Period	Other screws											
	Sheet metal (tapping), 10 x 3/4"				Wood, 10 x 1-1/4"				Machine, 1/4" - 2 - 1"			
	Domestic		Imported		Domestic		Imported		Domestic		Imported	
	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average
1972:												
Jan.-June	$2.57-$10.23	$2.80	$1.27-$3.50	$2.14	$5.11-$7.99	$6.00	$2.19-$4.90	$3.10	$5.89-$11.86	$6.38	$2.44-$6.23	$4.19
July-Dec	2.57- 10.23	2.70	2.00- 3.50	2.45	5.11- 8.00	6.23	2.32- 4.90	3.32	5.89- 12.00	6.44	2.77- 6.23	3.88
1973:												
Jan.-Mar	3.05- 10.23	3.43	1.75- 4.80	2.45	5.11- 8.61	6.79	3.00- 8.00	3.35	6.23- 12.00	8.28	2.55- 7.90	3.89
Apr.-June	3.16- 10.23	3.51	2.50- 5.00	3.09	5.50- 8.61	6.80	4.74- 8.00	4.74	6.66- 12.00	8.28	3.22- 7.90	4.34
July-Sept	3.16- 10.23	3.56	2.25- 5.00	2.92	5.50- 8.61	6.80	3.70- 8.00	4.84	6.66- 12.00	8.27	2.15- 7.90	3.10
Oct.-Dec	3.20- 10.23	3.62	2.95- 5.80	3.37	4.66- 9.69	5.51	2.79- 8.00	3.42	7.08- 12.00	8.63	3.88- 9.50	5.37
1974:												
Jan.-Mar	3.20- 10.23	3.40	2.32- 6.40	3.53	4.66- 9.67	7.31	2.55- 8.00	2.96	5.88- 12.00	7.31	5.71-10.50	6.23
Apr.-June	3.53- 18.83	3.84	3.00- 6.40	3.61	5.33- 9.68	7.52	5.33- 8.80	6.21	6.49- 14.08	7.85	5.30-10.50	5.86
July-Sept	3.90- 18.83	4.37	3.30- 6.40	4.00	5.33-11.63	5.90	6.41- 8.80	6.41	6.49- 15.63	9.76	5.02-10.50	7.10
Oct.-Dec	3.87- 18.83	4.32	2.54- 7.20	3.53	6.40-11.63	7.97	1.00- 7.12	5.92	7.27- 18.78	9.07	4.50-11.80	5.30
1975:												
Jan.-Mar	3.70- 18.83	4.93	2.39- 7.20	3.15	6.40-13.02	8.87	1.00- 7.12	5.28	7.81- 18.78	11.06	3.50-11.80	4.64
Apr.-June	3.60- 18.83	4.80	2.70- 7.20	2.93	6.40-13.02	8.35	1.00- 7.12	5.75	7.81- 18.78	11.08	3.37-11.80	4.35

1/ The price ranges and weighted averages shown for imported fasteners are only for imports from Japan.
2/ The precise specifications corresponding to each of the fasteners for which price data are shown are detailed in app. D.
3/ Not available.

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

Table 26.--Bolts, nuts, and screws of iron or steel: Lowest net selling prices received by U.S. producers and distributors 1/on sales of selected fasteners to original-equipment manufacturers, by types, January 1972-June 1975 2/

(Per thousand pieces)

Period	Cap screws							
	Grade 2, 3/8" x 1"				Grade 8, 3/8" x 1"			
	U.S. producers		Distributors		U.S. producers		Distributors	
	Range	Weighted average	Range	Weighted agerage	Range	Weighted average	Range	Weighted average
1972:								
January-June	$9.08-$19.10	$10.56	$6.11-$15.50	$8.71	$15.00-$23.50	$18.28	$18.26-$59.21	$28.09
July-December	8.65- 19.10	10.68	6.62- 15.50	8.83	15.09- 25.13	18.28	18.26- 59.21	27.14
1973:								
January-March	9.39- 19.10	10.99	6.62- 21.70	10.39	15.09- 27.16	19.38	18.26- 59.21	34.68
April-June	9.58- 19.10	11.62	12.60- 21.70	13.51	15.09- 27.78	19.44	19.82- 68.76	27.16
July-September	9.98- 19.10	12.99	9.80- 21.70	13.36	16.77- 27.16	19.91	25.76- 68.76	32.09
October-December	9.98- 23.40	12.37	13.64- 22.20	13.90	16.77- 27.16	20.68	25.76- 68.76	32.80
1974:								
January-March	11.12- 17.65	13.49	16.23- 33.70	16.97	18.63- 35.20	22.15	27.07- 73.92	39.81
April-June	13.00- 22.00	17.57	16.25- 33.70	21.89	18.63- 38.83	22.26	29.23- 73.92	43.21
July-September	15.84- 25.40	18.37	16.26- 33.70	23.59	18.63- 44.80	27.37	31.37- 73.92	45.47
October-December	19.61- 25.40	23.57	17.68- 33.70	22.74	20.70- 44.80	31.88	31.37- 74.70	48.37
1975:								
January-March	19.61- 44.30	32.28	17.54- 42.30	19.96	20.70- 44.80	28.19	36.86- 74.70	51.39
April-June	19.61- 28.76	25.24	15.46- 42.30	18.20	20.70- 44.80	27.84	26.80- 74.70	29.66

Period	Bolts							
	Structural bolt, A325, with nut, 3/4" x 2"				Carriage bolt, 3/8" x 3"			
	U.S. producers		Distributors		U.S. rodu		Distributors	
	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average
1972:								
January-June	$144.19-$165.20	$162.08	$143.57-$222.50	$146.45	$18.71-$37.55	$30.46	$16.00-$35.20	$22.63
July-December	138.37- 173.60	165.66	130.16- 248.50	148.70	18.41- 30.81	26.61	19.13- 28.90	21.75
1973:								
January-March	144.55- 173.60	167.58	130.89- 316.20	141.88	20.88- 30.81	28.33	23.14- 49.30	28.94
April-June	144.55- 184.10	178.03	155.49- 316.20	185.17	20.55- 30.81	26.65	24.54- 49.30	30.82
July-September	172.89- 184.10	181.21	145.25- 316.20	192.08	25.16- 30.81	29.86	24.54- 49.30	31.49
October-December	169.49- 190.00	186.20	230.15- 316.20	240.96	24.35- 30.81	28.17	29.39- 52.20	33.16
1974:								
January-March	166.00- 268.50	210.60	233.50- 513.60	285.69	26.14- 30.18	29.97	34.17- 62.30	39.12
April-June	211.18- 282.50	239.57	241.90- 742.80	376.79	29.60- 44.40	32.23	31.69- 70.20	51.48
July-September	240.72- 507.50	343.04	254.00- 742.80	396.96	30.81- 53.25	39.16	43.00- 78.70	51.35
October-December	272.13- 357.00	315.50	263.50- 742.80	362.00	45.26- 53.40	49.94	42.49- 71.00	43.95
1975:								
January-March	273.06- 357.00	314.90	263.50- 742.80	484.29	46.26- 66.65	52.43	36.63- 88.50	42.70
April-June	327.36- 359.00	336.27	258.00- 525.90	292.83	46.26- 53.40	53.38	35.57- 88.50	38.37

See footnotes at end of table.

Table 26.--Bolts, nuts, and screws of iron or steel: Lowest net selling prices received by U.S. producers and distributors 1/on sales of selected fasteners to original-equipment-manufacture customers, by types, January 1972-June 1975 2/--Continued

(Per thousand pieces)

Period	Nuts							
	Hex nut, 1/4" - 20				Hex nut, 1/2" - 13			
	U.S. producers		Distributors		U.S. producers		Distributors	
	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average
1972:								
January-June	$2.49-$4.56	$3.07	$1.25-$5.35	$1.87	$9.36-$17.10	$11.43	$8.51-$21.50	$9.73
July-December	2.61- 4.56	3.02	1.75- 5.35	2.21	9.15- 17.10	11.28	7.86- 21.50	10.33
1973:								
January-March	2.61- 4.56	3.81	2.30- 6.70	2.35	9.62- 17.10	12.35	9.82- 26.00	10.63
April-June	2.79- 4.56	3.35	3.00- 9.00	3.79	10.77- 17.10	12.69	9.15- 26.00	11.64
July-September	2.92- 5.00	3.82	2.70- 9.00	3.78	9.90- 17.10	11.68	13.54- 26.00	14.66
October-December	3.14- 5.40	3.73	3.99- 9.00	4.59	11.66- 20.40	13.36	13.39- 26.00	15.26
1974:								
January-March	2.85- 5.58	4.46	3.80-14.70	7.69	13.29- 18.50	14.54	10.00- 43.30	25.73
April-June	3.68- 9.00	4.46	2.96-15.10	5.37	13.60- 34.00	19.24	22.10- 57.10	29.75
July-September	4.88-10.00	5.78	4.18-15.10	8.73	14.20- 37.00	20.88	20.00- 57.10	28.32
October-December	5.75-10.00	6.31	4.00-15.10	8.00	18.90- 37.80	22.62	11.00- 57.10	19.05
1975:								
January-March	5.75-11.92	6.42	2.77-18.30	2.95	18.90- 37.80	24.39	11.00- 63.00	14.05
April-June	5.75- 12.71	6.19	2.30-18.30	2.40	18.90- 37.80	23.85	10.50- 63.00	12.92

Period	Stainless steel items							
	Hex nut, 1/4" - 20				Machine screw, 1/4 - 20 x 1"			
	U.S. producers		Distributors		U.S. producers		Distributors	
	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average
1972:								
January-June	***	***	$12.46-$30.50	$15.06	***	***	$17.50-$41.60	$19.35
July-December	***	***	12.46- 30.50	13.08	***	***	19.00- 41.00	26.38
1973:								
January-March	***	***	12.00- 30.50	13.32	***	***	23.00- 50.20	30.81
April-June	***	***	12.94- 30.50	13.61	***	***	19.00- 50.20	26.87
July-September	***	***	13.86- 32.34	16.18	***	***	31.36- 50.20	35.59
October-December	***	***	14.00- 32.60	14.53	***	***	19.00- 50.20	29.72
1974:								
January-March	***	***	14.00- 32.60	16.67	***	***	30.05- 61.00	38.17
April-June	***	***	18.70- 33.50	22.40	***	***	29.00- 61.00	34.57
July-September	***	***	21.00- 41.50	23.62	***	***	34.29- 65.60	40.58
October-December	***	***	19.00- 41.50	22.59	***	***	34.06- 65.60	39.02
1975:								
January-March	***	***	19.00- 41.50	22.33	***	***	31.50- 65.60	39.50
April-June	***	***	15.00- 41.38	17.99	***	***	26.40- 65.60	35.54

See footnotes at end of table.

Table 26.--Bolts, nuts, and screws of iron or steel: Lowest net selling prices received by U.S. producers and distributors 1/ on sales of selected fasteners to original-equipment-manufacturer customers, by types, January 1972-June 1975 2/--Continued

(Per thousand pieces)

Period	Other screws											
	Tapping (sheet metal), 10 x 3/4"				Wood, 10 x 1-1/4"				Machine 1/4" - 20 x 1"			
	U.S. producers		Distributors		U.S. producers		Distributors		U.S. producers		Distributors	
	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average	Range	Weighted average
1972:												
January-June	$2.86-$5.89	$3.15	$2.06-$6.00	$2.84	$3.98-$7.94	$4.17	$2.45-$9.75	$3.02	$5.86-$10.08	$6.58	$2.68-$10.20	$3.19
July-December	2.86- 5.89	3.08	2.25- 7.20	3.42	3.59- 8.42	3.64	2.71- 9.75	3.37	6.23- 10.72	6.55	3.79- 12.20	3.98
1973:												
January-March	3.38- 6.73	4.29	2.97- 8.90	3.43	2.48- 9.06	7.40	3.34-15.60	4.57	6.23- 11.46	8.68	3.82- 15.00	4.73
April-June	3.39- 6.73	4.22	3.18-12.40	4.02	3.95- 9.06	4.38	4.94-13.70	6.30	7.03- 11.46	8.68	4.91- 25.69	6.14
July-September	3.39- 6.73	4.04	2.70-12.40	4.28	4.26- 7.23	4.33	4.94-14.50	7.39	7.03- 11.46	8.61	4.91- 27.89	5.89
October-December	3.39- 7.60	4.15	3.18-12.40	4.25	4.40-10.18	4.68	4.94-14.50	6.12	7.03- 12.40	8.80	4.91- 27.89	6.10
1974:												
January-March	3.52- 7.60	4.14	3.56-11.40	4.33	4.58-10.18	4.62	5.35-23.50	9.09	6.47- 12.40	9.31	5.87- 17.40	7.35
April-June	3.88- 7.60	4.43	3.74-12.20	5.14	4.71-10.18	4.74	5.92-16.40	9.70	7.14- 12.40	9.70	6.59- 18.70	8.90
July-September	4.17-8.83	4.70	2.46-12.20	3.50	5.41-12.24	5.82	7.12-24.20	10.54	7.14- 14.92	10.34	5.54- 18.70	7.29
October-December	4.16-8.83	4.84	3.59-12.20	4.16	5.51-12.24	7.53	6.59-24.80	10.51	8.56- 14.92	10.13	7.28- 18.70	9.31
1975:												
January-March	4.67-8.83	5.36	4.07-12.20	4.28	5.75-12.24	6.01	4.68-13.70	7.25	8.56- 14.92	11.83	5.54- 18.70	7.10
April-June	4.67-8.83	5.02	3.49- 9.94	3.80	5.92-12.24	7.45	6.68-41.60	8.79	5.69- 14.92	11.73	5.21- 15.26	6.44

1/ The price data reported by most distributors reflect sales of both domestic and imported fasteners. Since distributors which purchase both imported and domestic fasteners usually commingle their products and sell them at a uniform price, the prices reported by distributors cannot be construed as representative of either the domestic or the imported product. However, the data are indicative of the pricing pattern by distributors as a group.

2/ The precise specifications corresponding to each of the fasteners for which price data are shown are detailes in app. D.

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

Table 27.--Bolts, nuts, and screws of iron or steel: Full standard production costs of selected fasteners reported by certain U.S. producers, by items of cost, 1972 and 1974 1/

(Per thousand pieces)

Item	Cap screws		Bolts		Nuts	
	Grade 2, 3/8" x 1"	Grade 8, 3/8" x 1"	Structural bolt, A325, with nut, 3/4" x 2"	Carriage bolt, 3/8" x 3"	Hex nut, 1/4"-20	Hex nut, 1/2"-13
1972						
Materials:						
Range	$2.28-$5.78	$7.05-$10.59	$33.30-$102.40	$5.18-$13.23	$0.45-$1.24	$2.30-$6.11
Weighted average	5.17	10.45	98.48	12.73	1.01	5.99
Direct Labor:						
Range	.41- 4.90	.58- 5.60	3.31- 22.84	.50- 6.92	.30- .72	.69- 1.60
Weighted average	.67	2.26	7.43	.65	.50	.92
Overhead:						
Range	.73- 8.83	2.38- 11.06	9.07- 81.98	1.05- 17.38	1.51- 2.82	3.71- 8.42
Weighted average	3.59	4.42	18.21	1.95	2.35	4.91
Total cost:						
Range	6.80-19.34	10.01- 24.06	111.01- 172.84	14.60- 37.53	2.70- 4.42	10.45-14.36
Weighted average	9.43	17.13	124.12	15.33	3.86	11.82
1974						
Materials:						
Range	3.61-10.24	8.57- 13.97	52.30- 211.40	8.49- 23.75	.73- 1.48	3.68- 8.12
Weighted average	7.78	13.32	157.71	19.59	1.35	7.79
Direct labor:						
Range	.53- 6.58	.79- 7.27	5.43- 30.39	.95- 9.13	.37- .92	.82- 1.91
Weighted average	1.40	2.01	12.84	1.55	.69	1.42
Overhead:						
Range	1.43-10.52	4.16- 13.19	21.48- 92.49	1.90- 20.87	1.78- 3.12	4.41- 9.32
Weighted average	4.92	4.92	50.28	5.90	2.49	5.44
Total cost:						
Range	11.05-24.73	14.40-30.10	162.19-265.79	24.15- 48.23	3.86- 5.33	12.43-17.93
Weighted average	14.10	20.25	220.83	27.04	4.53	14.65

1/ The precise specifications corresponding to each of the fasteners for which cost data are shown are detailed in app. D.

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

Table 27.--Bolts, nuts, and screws of iron or steel: Full standard production costs of selected fasteners reported by certain U.S. producers, by items of cost, 1972 and 1974--Continued

(Per thousand pieces)

Item	Stainless steel items		Other screws		
	Hex nut, 1/4"-20	Machine screw, 1/4"-20 x 1"	Sheet metal, 10 x 3/4"	Wood, 10 x 1-1/4"	Machine, 1/4"-20 x 1"
1972					
Materials:					
Range	***	$9.13-$16.87	$0.78-$1.17	$1.20-$1.38	$1.87-$2.40
Weighted average	***	16.49	0.80	1.38	2.23
Direct labor:	***				
Range	***	.75- 1.87	.20- .66	.25- 1.06	.15- 1.00
Weighted average	***	1.68	.30	.45	.96
Overhead:	***				
Range	***	2.88- 7.41	.40- 2.02	.50- 2.55	.45- 2.26
Weighted average	***	5.57	.97	1.20	1.14
Total cost:					
Range	***	12.76- 26.15	1.50- 3.56	1.95- 4.95	2.65- 5.26
Weighted average	***	23.74	2.07	3.03	4.33
1974					
Materials:					
Range	9.96	13.68- 23.43	1.04- 2.27	1.68- 2.66	2.23- 3.75
Weighted average	9.96	23.43	1.47	2.30	3.43
Direct labor:					
Range	1.98	.91- 1.93	.21- .79	.45- 1.54	.30- 1.53
Weighted average	1.98	1.85	.36	.50	1.00
Overhead:					
Range	7.92	3.81- 7.41	.70- 2.39	.90- 3.63	.60- 3.00
Weighted average	7.92	7.41	.96	1.14	1.31
Total cost:					
Range	19.86	18.40- 32.69	2.53- 4.22	3.55- 6.86	4.35- 6.67
Weighted average	19.86	32.69	2.79	3.94	5.74

Table 28.--Profit-and-loss experience of certain U.S. producers on their fastener operations, 1969-74 and January-June 1975

Item	1969	1970	1971	1972	1973	1974	January-June 1975
Bolts, nuts, and screws:							
Net sales-------1,000 dollars--	923,237	843,367	897,670	1,107,064	1,322,737	1,648,816	508,761
Cost of goods sold-------do----	725,114	685,386	724,127	896,262	1,033,839	1,231,635	381,517
Gross profit-------------do----	198,123	157,981	173,543	210,802	288,898	417,181	127,244
Selling and administrative expenses------1,000 dollars--	127,540	123,339	126,806	137,337	151,486	173,373	62,620
Net operating profit-----do----	70,583	34,642	46,737	73,465	137,412	243,808	64,624
Other expense------------do----	1,267	3,339	3,205	4,320	2,072	5,181	1,982
Net profit before income taxes---------1,000 dollars--	69,316	31,303	43,532	69,145	135,340	238,627	62,642
Ratio of net operating profit to net sales--------percent--	7.6	4.1	5.2	6.6	10.4	14.8	12.7

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

Table 29.--Profit-and-loss experience of small-screw producers and bolt, nut, and large-screw producers, 1969-74 and January-June 1975

Item	1969	1970	1971	1972	1973	1974	January-June 1975
Small-screw producers:							
Net sales----------1,000 dollars--	272,888	245,447	270,338	337,878	425,513	457,727	101,502
Cost of goods sold----------do----	200,285	186,660	211,194	262,206	320,013	342,246	77,739
Gross profit----------do----	72,603	58,787	59,144	75,672	105,500	115,481	23,763
Selling and administrative expenses---------1,000 dollars--	39,393	38,334	38,714	43,589	52,697	57,959	17,127
Net operating profit--------do----	33,210	20,453	20,430	32,083	52,803	57,522	6,636
Other expense----------do----	338	653	781	468	648	1,916	593
Net profit before income taxes 1,000 dollars--	32,872	19,800	19,649	31,615	52,155	55,606	6,043
Ratio of net operating profit to net sales----------percent--	12.2	8.3	7.6	9.5	12.4	12.6	6.5
Bolt, nut, and large-screw producers:							
Net sales----------1,000 dollars--	650,349	597,920	627,332	769,186	897,224	1,191,089	407,259
Cost of goods sold----------do----	524,829	498,726	512,933	634,056	713,826	889,389	303,778
Gross profit----------do----	125,520	99,194	114,399	135,130	183,398	301,700	103,481
Selling and administrative expenses---------1,000 dollars--	88,147	85,005	88,092	93,748	98,789	115,414	45,493
Net operating profit--------do----	37,373	14,189	26,307	41,382	84,609	186,286	57,988
Other expense----------do----	929	2,686	2,424	3,852	1,424	3,265	1,389
Net profit before income taxes 1,000 dollars--	36,444	11,503	23,883	37,530	83,185	183,021	56,599
Ratio of net operating profit to net sales----------percent--	5.7	2.4	4.2	5.4	9.4	15.6	14.2

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

Table 30.--Capital expenditures for facilities which are used directly or indirectly in the production of U.S.-made bolts, nuts, and screws of iron or steel, 1/ 1969-74 and January-June 1975

(In thousands of dollars)

Item	1969	1970	1971	1972	1973	1974	January-June 1975
Land and land improvements	1,200	199	159	194	1,249	402	76
Buildings and leasehold improvements	4,563	3,548	2,537	2,004	11,724	3,128	529
Machinery, equipment, and fixtures:							
New 2/	21,857	18,119	14,827	13,238	23,827	25,493	14,112
Used	1,008	1,237	1,195	1,536	10,512	4,329	659

1/ Excludes expenditures for administrative, warehousing, or any other manufacturing facilities.

2/ Includes only new machinery not previously employed.

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

Note.--Data were based on responses to Commission questionnaires from U.S. producers which accounted for approximately 50 percent of all domestic shipments, in terms of value, in 1974.

Table 31.--Expenditures for research and development 1/ by certain U.S. producers of bolts, nuts, and screws of iron or steel, 1969-74 and January-June 1975

Period	Expenditures
	1,000 dollars
1969	5,401
1970	4,614
1971	4,775
1972	5,756
1973	7,540
1974	7,816
1975 (January-June)	3,860

1/ Includes development of new products, improvement of present products, testing of competitors' products, development of new or improved manufacturing methods, development of new and special machines, the testing of raw materials, and pure research.

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

Note.--Data were based on responses to Commission questionnaires from U.S. producers which accounted for approximately 50 percent of all domestic shipments, in terms of value, in 1974.

Table 32.--Bolts, nuts, and screws of iron or steel: U.S. producers' shipments, by items, to specific types of customers, 1970 and 1974

(In thousands of dollars)

Item	Original-equipment market											Wholesale distributors		Other domestic fastener manufacturers	Total
	Mining	Motor vehicle	Machinery	Construction	Appliance	Government	Farm equipment	Aircraft	Chemical and oil	Railroad	Other	Wholly or partially owned	Other		
1970															
Bolts	58,217	119,007	12,402	19,526	791	3,430	16,360	32,192	263	4,485	17,415	3,166	32,192	2,902	322,348
Nuts	-	55,862	7,548	6,039	1,174	2,013	9,058	17,949	167	2,180	24,827	1,845	34,557	4,529	167,748
Screws	-	122,504	23,783	11,667	28,270	897	18,398	448	448	2,243	90,195	7,628	136,864	5,833	449,178
Total	58,217	297,373	43,733	37,232	30,235	6,340	43,816	50,589	878	8,908	132,437	12,639	203,613	13,264	939,274
1974															
Bolts	113,654	138,047	22,463	43,701	1,225	3,267	29,406	33,082	2,042	13,069	41,659	10,210	60,038	10,210	522,073
Nuts	-	98,903	13,209	13,210	1,933	3,221	19,330	30,284	322	4,188	46,071	9,987	69,912	11,598	322,168
Screws	-	209,657	41,767	23,750	48,319	1,637	28,664	818	820	3,275	157,242	16,379	273,536	13,922	819,786
Total	113,654	446,607	77,439	80,661	51,477	8,125	77,400	64,184	3,184	20,532	244,972	36,576	403,486	35,730	1,664,027

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

Table 33.--Bolts, nuts, and screws of iron or steel: U.S. shipments of imported fasteners, by items, to specific types of customers, 1970 and 1974

(In thousand of dollars)

Item	Original-equipment market										Wholesale distributors	Other domestic fastener manufacturers	Total
	Motor vehicle	Machinery	Construction	Appliance	Government	Farm equipment	Aircraft	Chemical and oil	Railroad	Other			
1970													
Bolts	-	286	1,429	286	-	286	-	286	-	572	22,591	2,860	28,596
Nuts	575	541	1,122	532	-	625	-	1,210	375	1,180	44,908	5,050	56,118
Screws	-	-	1,341	-	-	-	-	-	-	1,342	54,988	9,388	67,059
Total	575	827	3,892	818	-	911	-	1,496	375	3,091	122,487	17,298	151,773
1974													
Bolts	6,002	2,401	13,205	2,401	-	3,601	-	2,401	-	2,401	73,232	14,406	120,050
Nuts	4,369	4,369	4,369	2,184	-	4,369	-	4,369	2,184	6,554	168,212	28,402	229,381
Screws	2,320	2,320	4,640	2,320	-	2,320	-	2,320	-	6,960	176,333	32,482	232,015
Total	12,691	9,090	22,214	6,905	-	10,290	-	9,090	2,184	15,915	417,777	75,290	581,446

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

Note.--Data were estimated by the staff of the U.S. International Trade Commission on the basis of responses to Commission questionnaires from U.S. importers which accounted for approximately 75 percent of all imported fasteners in terms of quantity and 60 percent in terms of value.

Table 34.--Bolts, nuts, and screws of iron or steel: Indexes of U.S. production, producers' shipments, imports for consumption, apparent consumption, and industrial production in major fastener-consuming markets, based on quantity, 1969-74, January-June 1974, and January-June 1975

(1969=100)

Period	U.S. production	Producers' shipments	Imports	Apparent consumption	Industrial production			
					Durable-goods manufacturing	Motor vehicles and parts	Nonelectric machinery	Rail and miscellaneous transportation equipment
1969	100	100	100	100	100	100	100	100
1970	97	93	110	96	92	84	95	96
1971	86	87	100	89	90	99	89	104
1972	98	98	127	102	99	107	100	116
1973	102	104	148	111	111	120	118	120
1974	111	109	202	123	110	98	126	94
January-June--								
1974	113	114	177	123	110	99	123	104
1975	96	89	140	96	95	76	112	75

Source: U.S. production and producers' shipments compiled from responses to questionnaires of the U.S. International Trade Commission; imports and apparent consumption derived from responses to Commission questionnaires and from official statistics of the U.S. Department of Commerce; industrial production compiled from official statistics of the Board of Governors of the Federal Reserve System.

Table 35.--Bolts of iron or steel: Indexes of production, producers' shipments, imports for consumption, apparent consumption, and industrial production in major fastener-consuming markets, based on quantity, 1969-74, January-June 1974, and January-June 1975

(1969=100)

Period	U.S. production	Producers' shipments	Imports	Apparent consumption	Industrial production			
					Durable-goods manufacturing	Motor vehicles and parts	Nonelectric machinery	Mining
1969	100	100	100	100	100	100	100	100
1970	98	96	102	97	92	84	95	102
1971	88	89	105	91	90	99	89	100
1972	96	98	128	101	99	107	100	101
1973	100	101	135	104	111	120	118	103
1974	113	111	216	118	110	98	126	102
January-June--								
1974	112	114	145	117	110	99	123	104
1975	107	104	121	104	95	76	112	100

Source: U.S. production and producers' shipments compiled from responses to questionnaires of the U.S. International Trade Commission; imports and apparent consumption derived from responses to Commission questionnaires and from official statistics of the U.S. Department of Commerce; industrial production compiled from official statistics of the Board of Governors of the Federal Reserve System.

Table 36.--Nuts of iron or steel: Indexes of U.S. production, producers' shipments, imports for consumption, apparent consumption, and industrial production in major fastener-consuming markets, based on quantity, 1969-74, January-June 1974, and January-June 1975

(1969=100)

Period	U.S. production	Producers' shipments	Imports	Apparent consumption	Industrial production			
					Durable-goods manufacturing	Motor vehicles and parts	Nonelectric machinery	Rail and miscellaneous transportation equipment
1969	100	100	100	100	100	100	100	100
1970	93	88	106	94	92	84	95	96
1971	77	77	99	84	90	99	89	104
1972	93	89	118	97	99	107	100	116
1973	83	91	130	102	111	120	118	120
1974	94	92	182	119	110	98	126	94
January-June--								
1974	96	97	161	116	110	99	123	104
1975	82	72	137	89	95	76	112	75

Source: U.S. production and producers' shipments compiled from responses to questionnaires of the U.S. International Trade Commission; imports and apparent consumption derived from responses to Commission questionnaires and from official statistics of the U.S. Department of Commerce; industrial production compiled from official statistics of the Board of Governors of the Federal Reserve System.

Table 37.--Large screws of iron or steel: Indexes of U.S. production, producers' shipments, imports for consumption, apparent consumption, and industrial production in major fastener-consuming markets, based on quantity, 1969-74, January-June 1974 and January-June 1975

(1969=100)

Period	U.S. production	Producers' shipments	Imports	Apparent consumption	Industrial production			
					Durable-goods manufacturing	Motor vehicles and parts	Nonelectric machinery	Rail and miscellaneous transportation equipment
1969	100	100	100	100	100	100	100	100
1970	95	92	120	96	92	84	95	96
1971	84	86	105	88	90	99	89	104
1972	99	98	147	103	99	107	100	116
1973	101	106	195	117	111	120	118	120
1974	108	106	299	129	110	98	126	94
January-June								
1974	111	111	265	128	110	99	123	104
1975	97	85	230	101	95	76	112	75

Source: U.S. production and producers' shipments compiled from responses to questionnaires of the U.S. International Trade Commission; imports and apparent consumption derived from responses to Commission questionnaires and from official statistics of the U.S. Department of Commerce; industrial production compiled from official statistics of the Board of Governors of the Federal Reserve System.

Table 38.--Small screws of iron or steel: Indexes of U.S. production, producers' shipments, imports for consumption, apparent consumption, and industrial production in major fastener-consuming markets, based on quantity, 1969-74, January-June 1974, and January-June 1975

(1969=100)

Period	U.S. production	Producers' shipments	Imports	Apparent consumption	Industrial production			
					Durable-goods manufacturing	Motor vehicles and parts	Household appliances	Household furniture
1969	100	100	100	100	100	100	100	100
1970	97	93	122	98	92	84	102	93
1971	93	91	93	91	90	99	109	99
1972	108	108	122	110	99	107	126	113
1973	124	125	153	129	111	120	137	127
1974	128	124	169	130	110	98	130	130
January-June--								
1974	132	131	169	138	110	99	133	132
1975	80	81	80	79	95	76	98	112

Source: U.S. production and producers' shipments compiled from responses to questionnaires of the U.S. International Trade Commission; imports and apparent consumption derived from responses to Commission questionnaires and from official statistics of the U.S. Department of Commerce; industrial production compiled from official statistics of the Board of Governors of the Federal Reserve System.

APPENDIX B

FIGURES

FIGURE 1

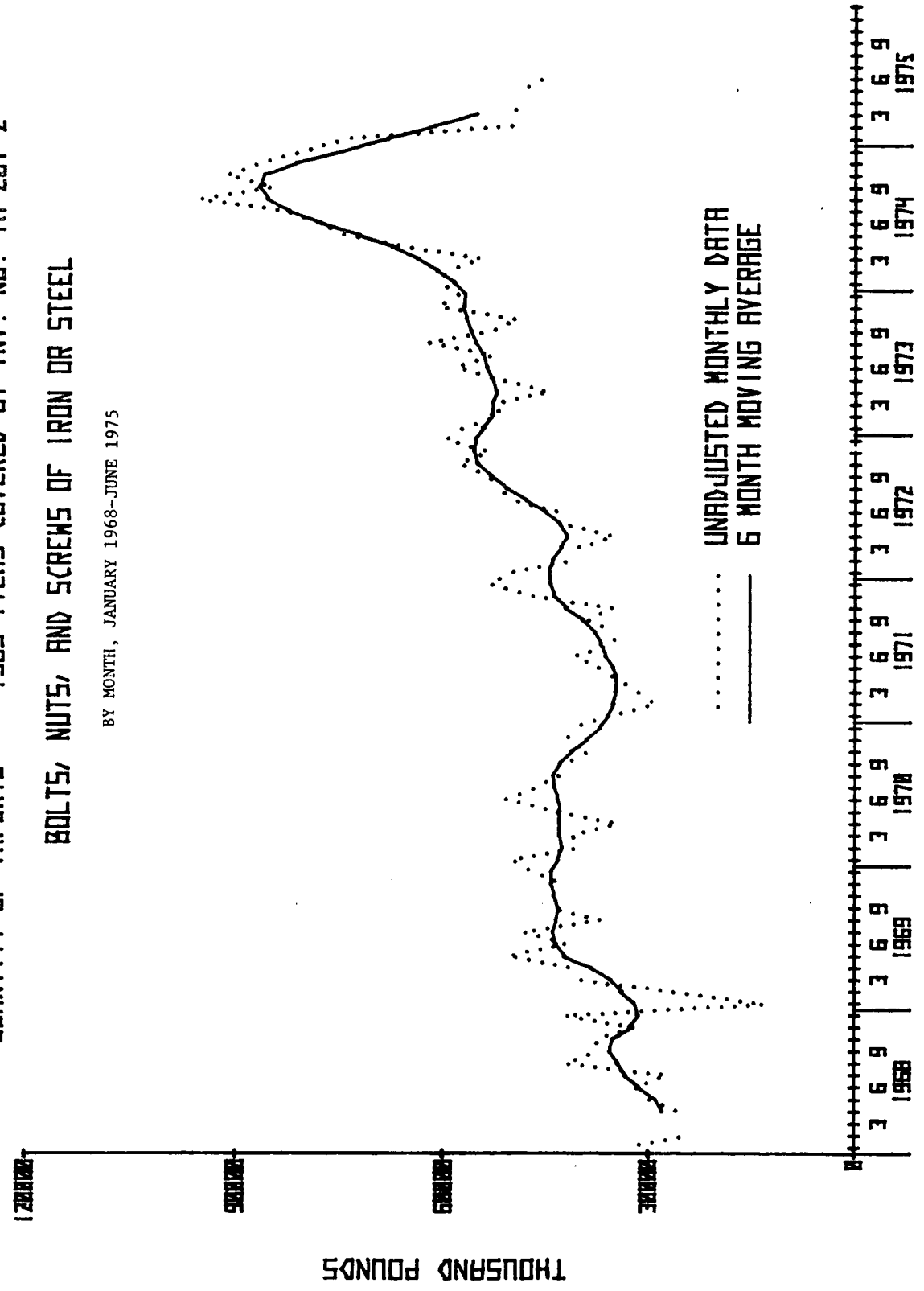

QUANTITY OF IMPORTS TSUS ITEMS COVERED BY INV. NO. TA-201-2
BOLTS, NUTS, AND SCREWS OF IRON OR STEEL
BY MONTH, JANUARY 1968-JUNE 1975
THOUSAND POUNDS
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
1968
1969
1970
1971
1972
1973
1974
1975
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 2

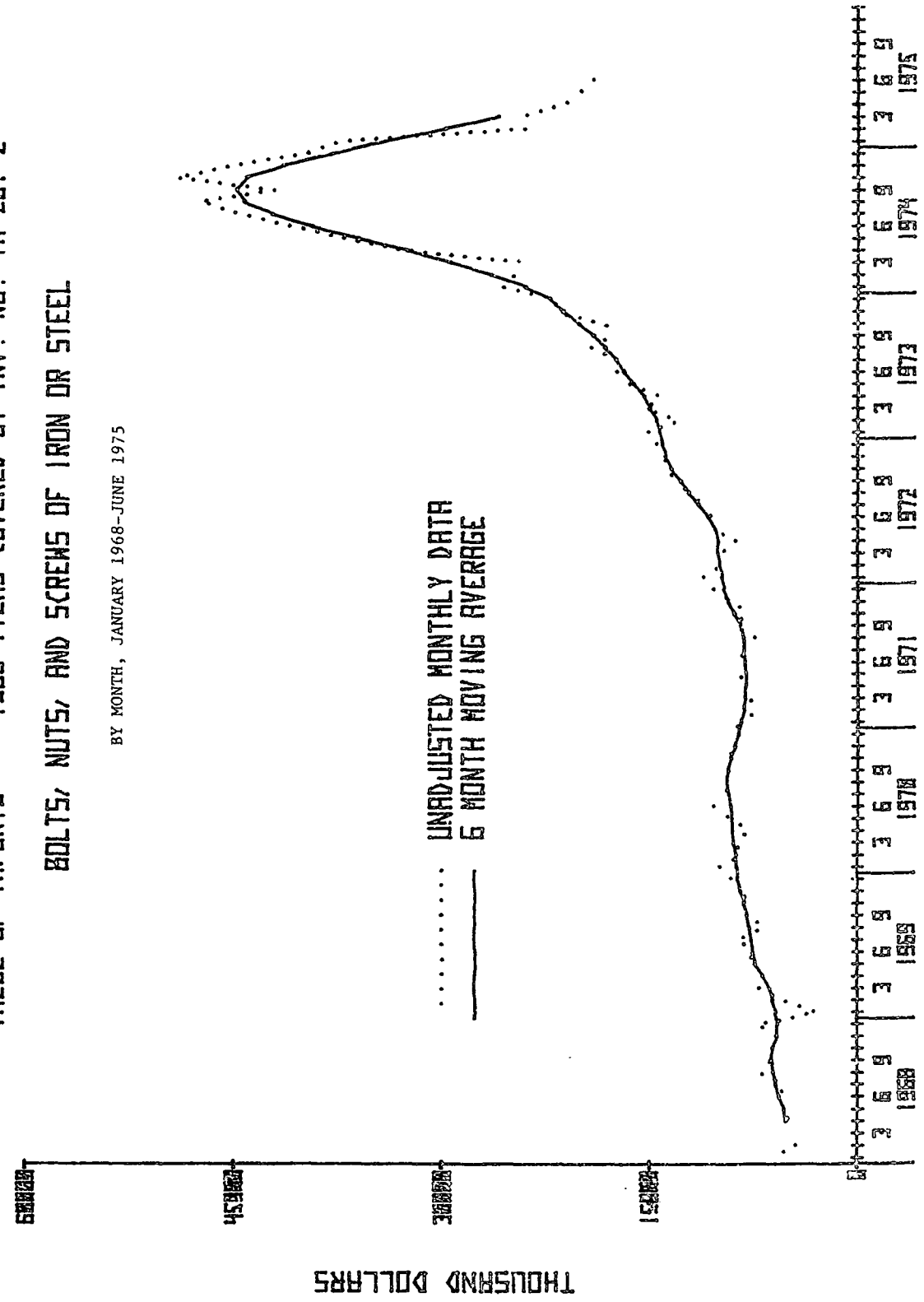

VALUE OF IMPORTS TSUS ITEMS COVERED BY INV. NO. TA-201-2
BOLTS, NUTS, AND SCREWS OF IRON OR STEEL
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
THOUSAND DOLLARS
1968
1969
1970
1971
1972
1973
1974
1975
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 3

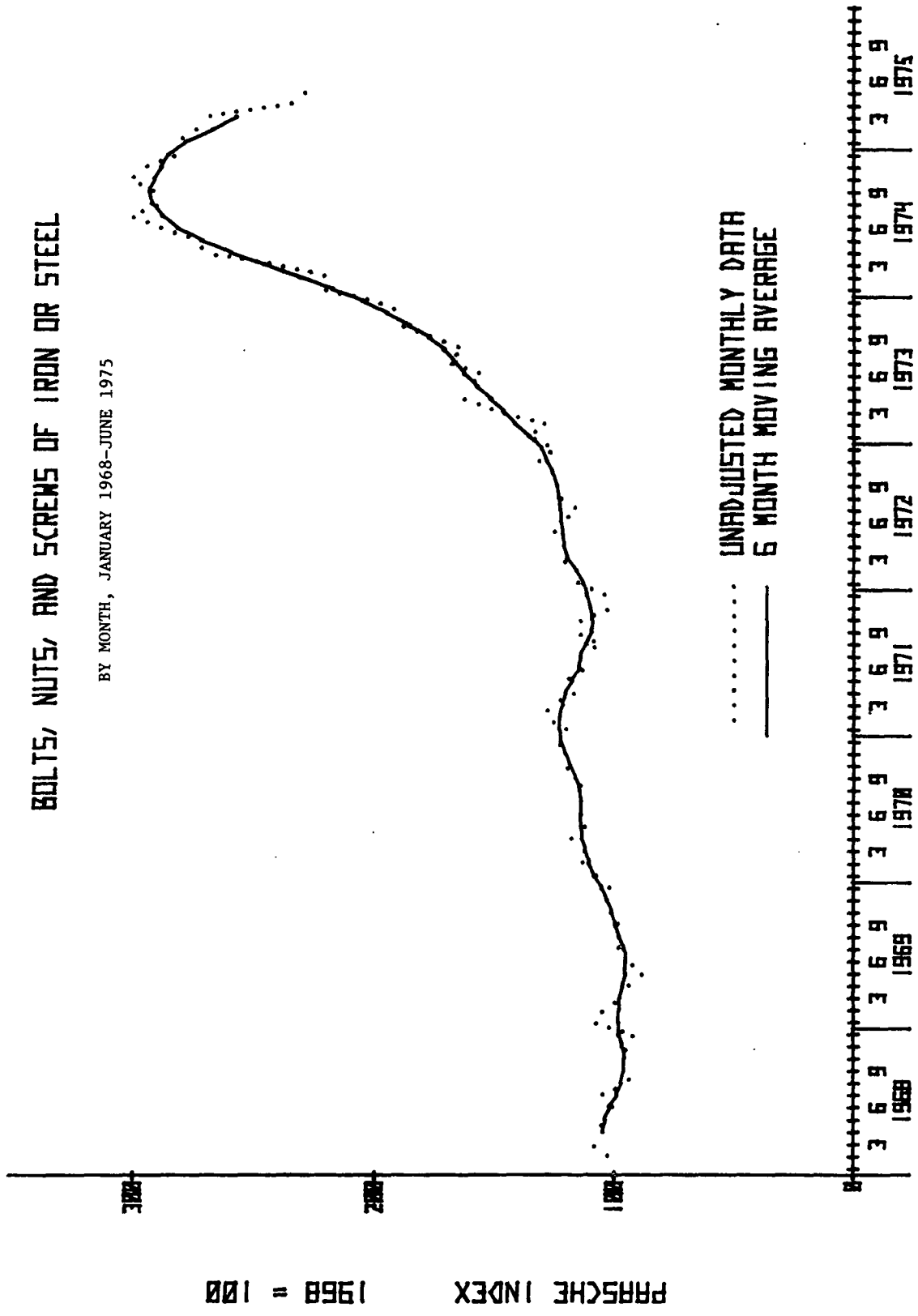

UNIT VALUE OF IMPORTS TSUS ITEMS COVERED BY INV. NO. TR-201-2
BOLTS, NUTS, AND SCREWS OF IRON OR STEEL
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
PARSCHE INDEX 1968 = 100
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 4

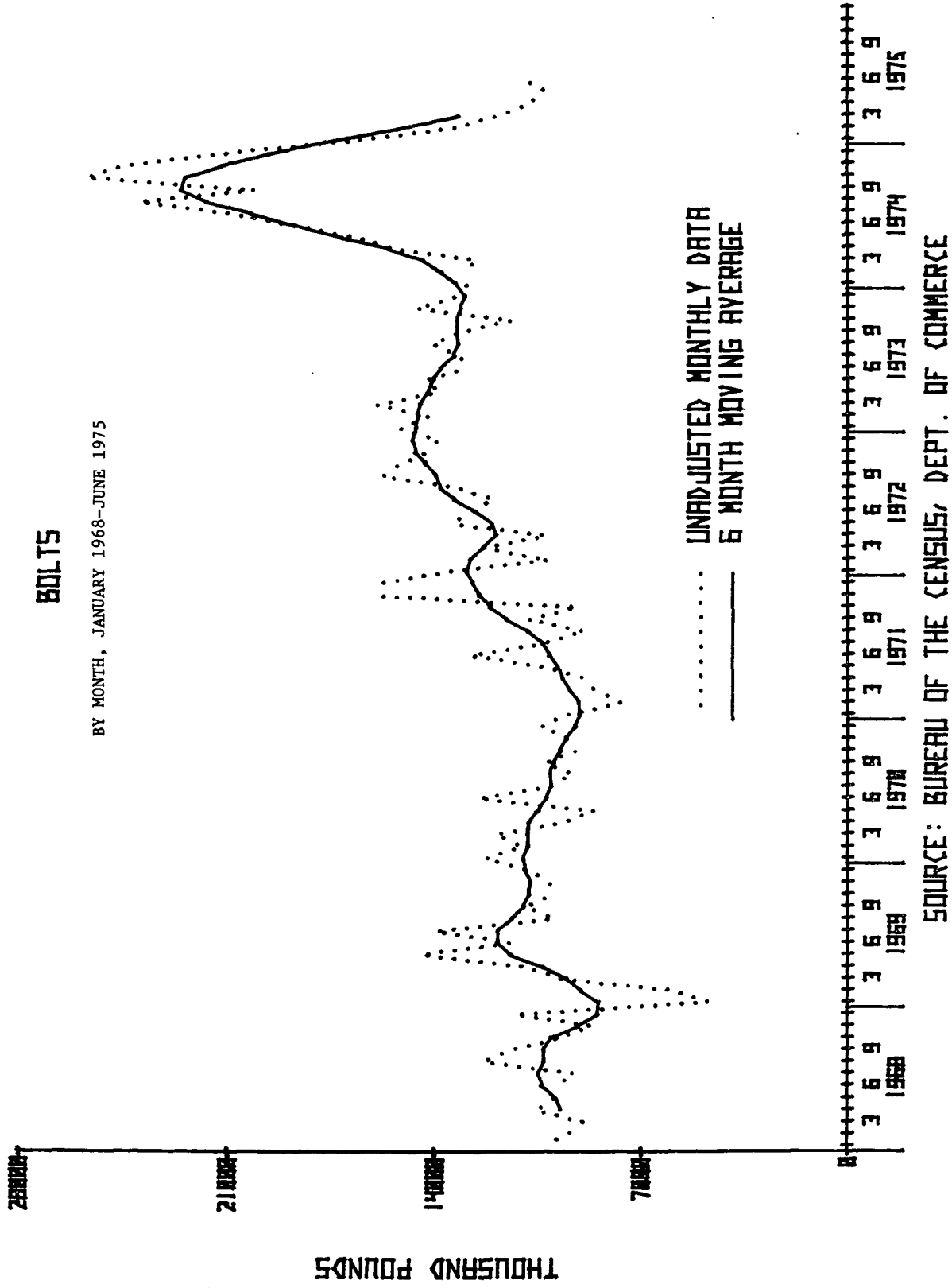

QUANTITY OF IMPORTS TSUS 646.54
BOLTS
BY MONTH, JANUARY 1968-JUNE 1975
THOUSAND POUNDS
28000
21000
14000
7000
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
1968
1969
1970
1971
1972
1973
1974
1975
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 5

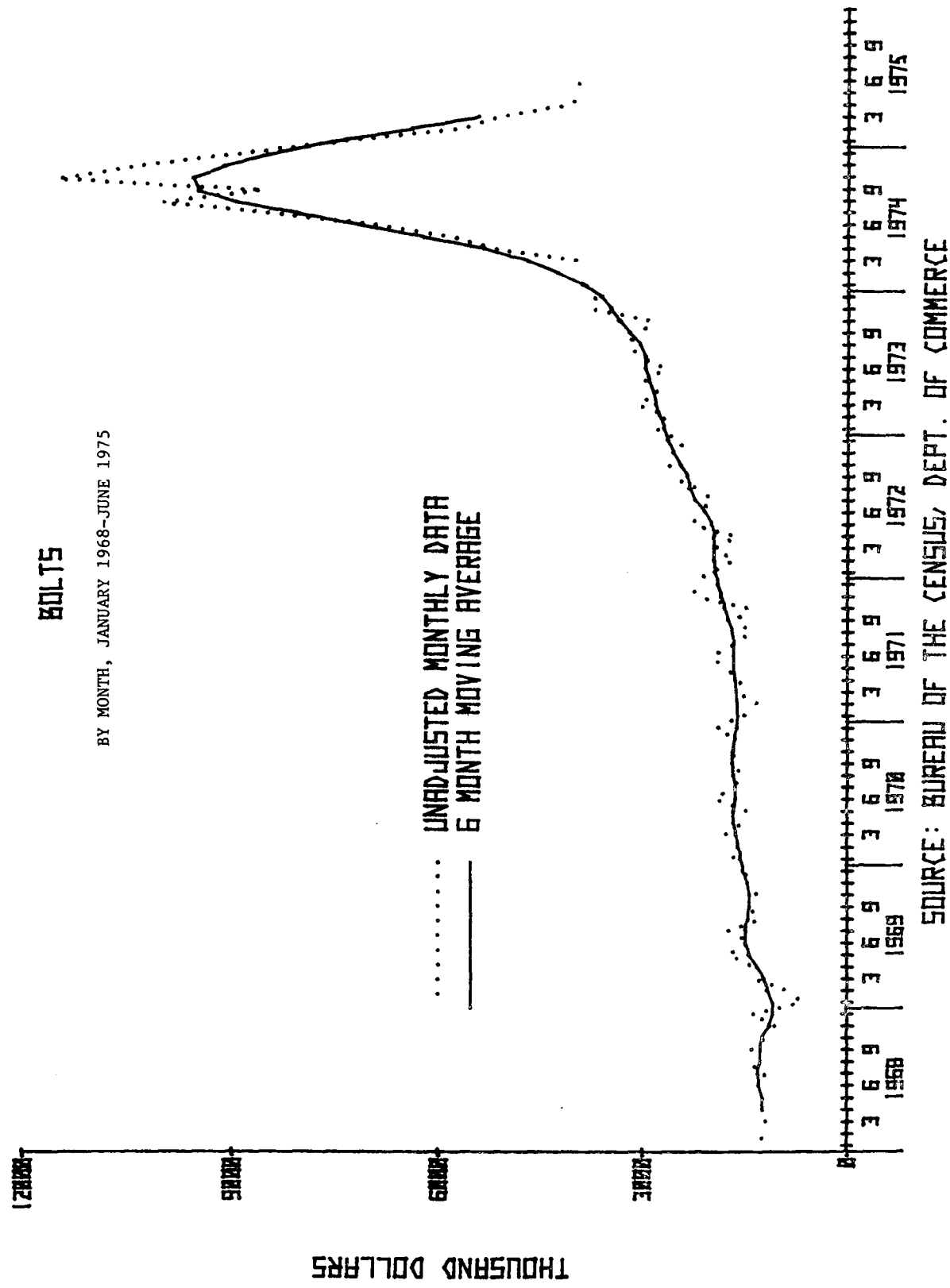

VALUE OF IMPORTS TSUS 646.54
BOLTS
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
THOUSAND DOLLARS
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 6

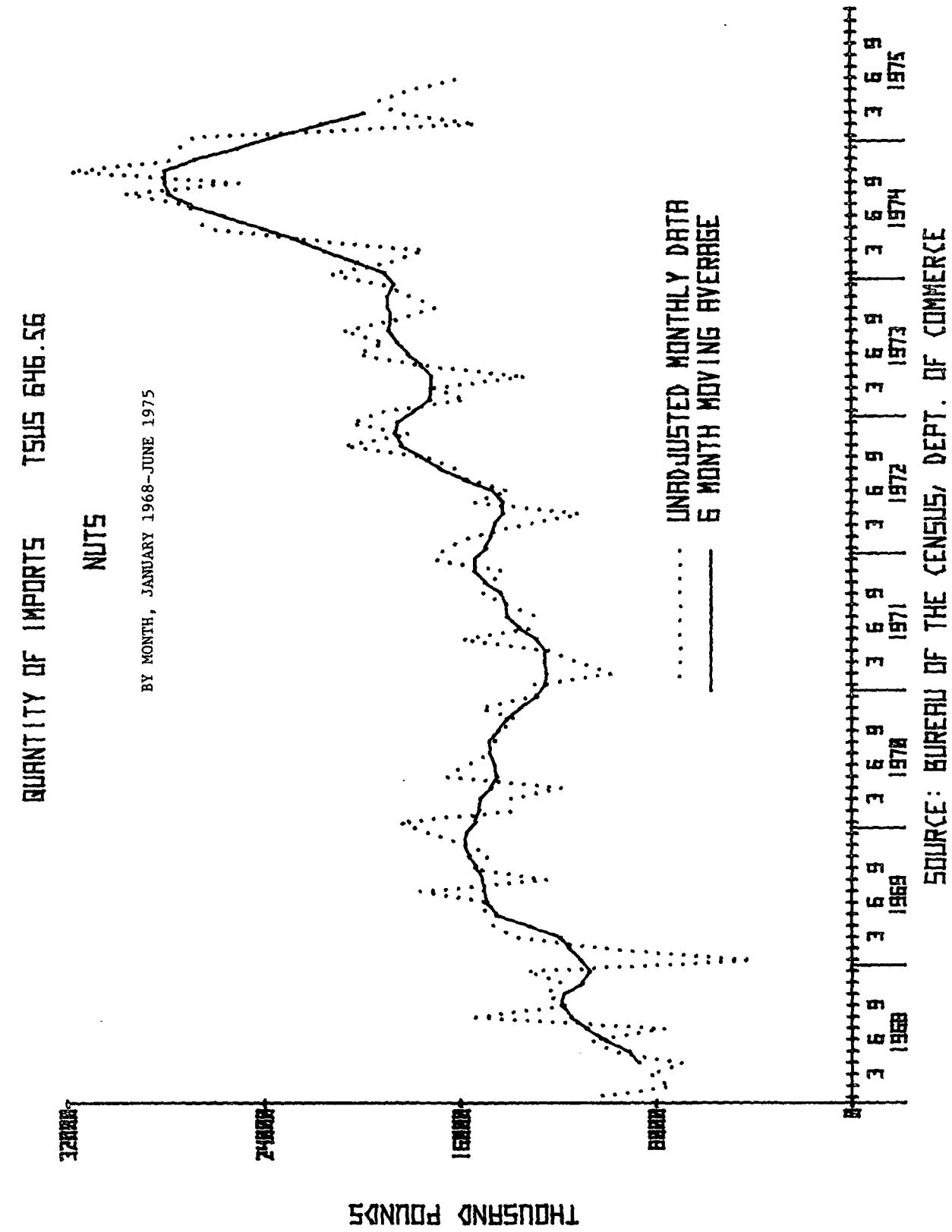

QUANTITY OF IMPORTS TSUS 646.56
NUTS
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
THOUSAND POUNDS
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 7

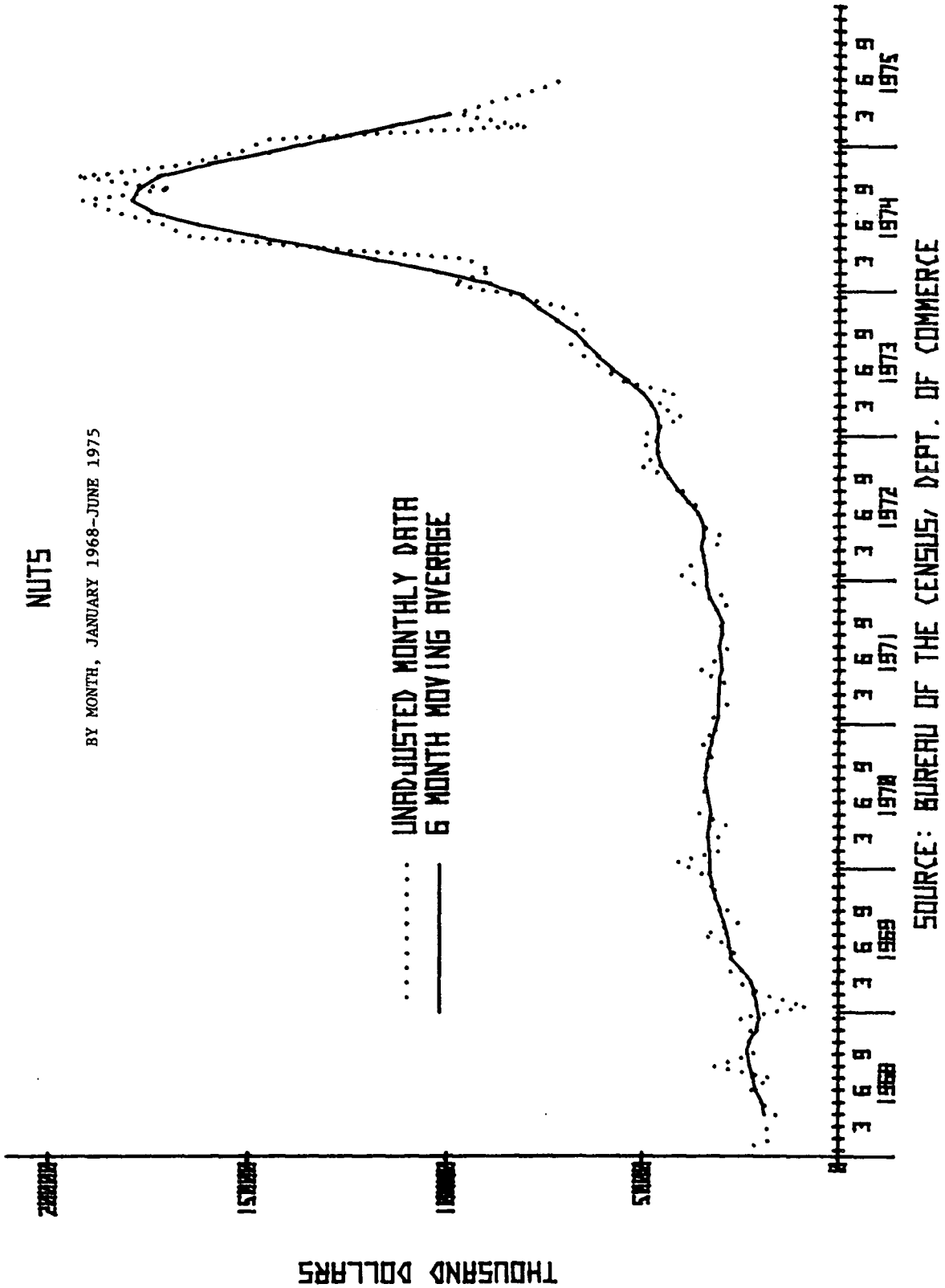

VALUE OF IMPORTS TSUS 646.56
NUTS
BY MONTH, JANUARY 1968-JUNE 1975
..... UNADJUSTED MONTHLY DATA
—— 6 MONTH MOVING AVERAGE
THOUSAND DOLLARS
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 8

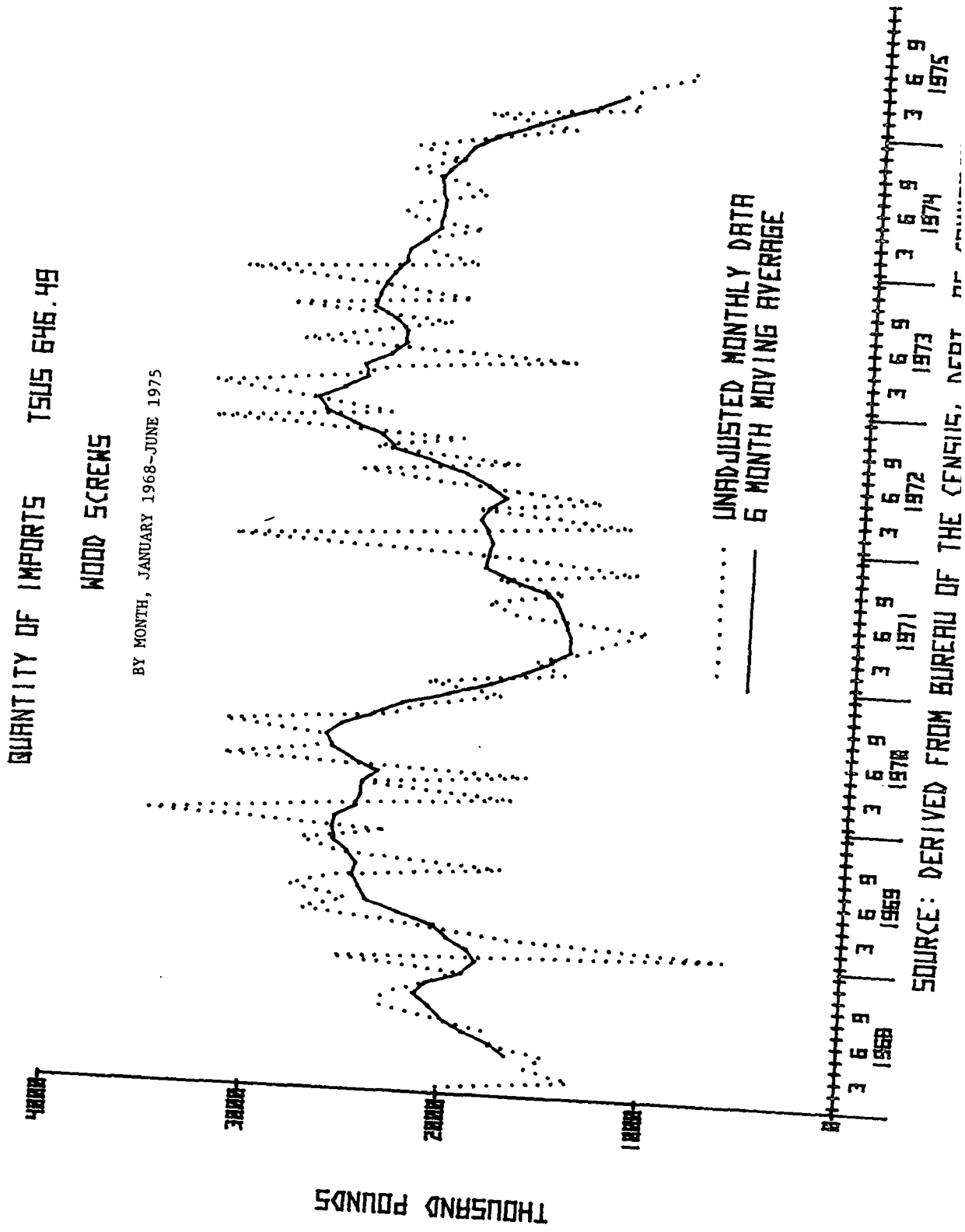

QUANTITY OF IMPORTS TSUS 646.49
WOOD SCREWS
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
THOUSAND POUNDS
4000
3000
2000
1000
0
1968
1969
1970
1971
1972
1973
1974
1975
SOURCE: DERIVED FROM BUREAU OF THE CENSUS, DEPT

FIGURE 9

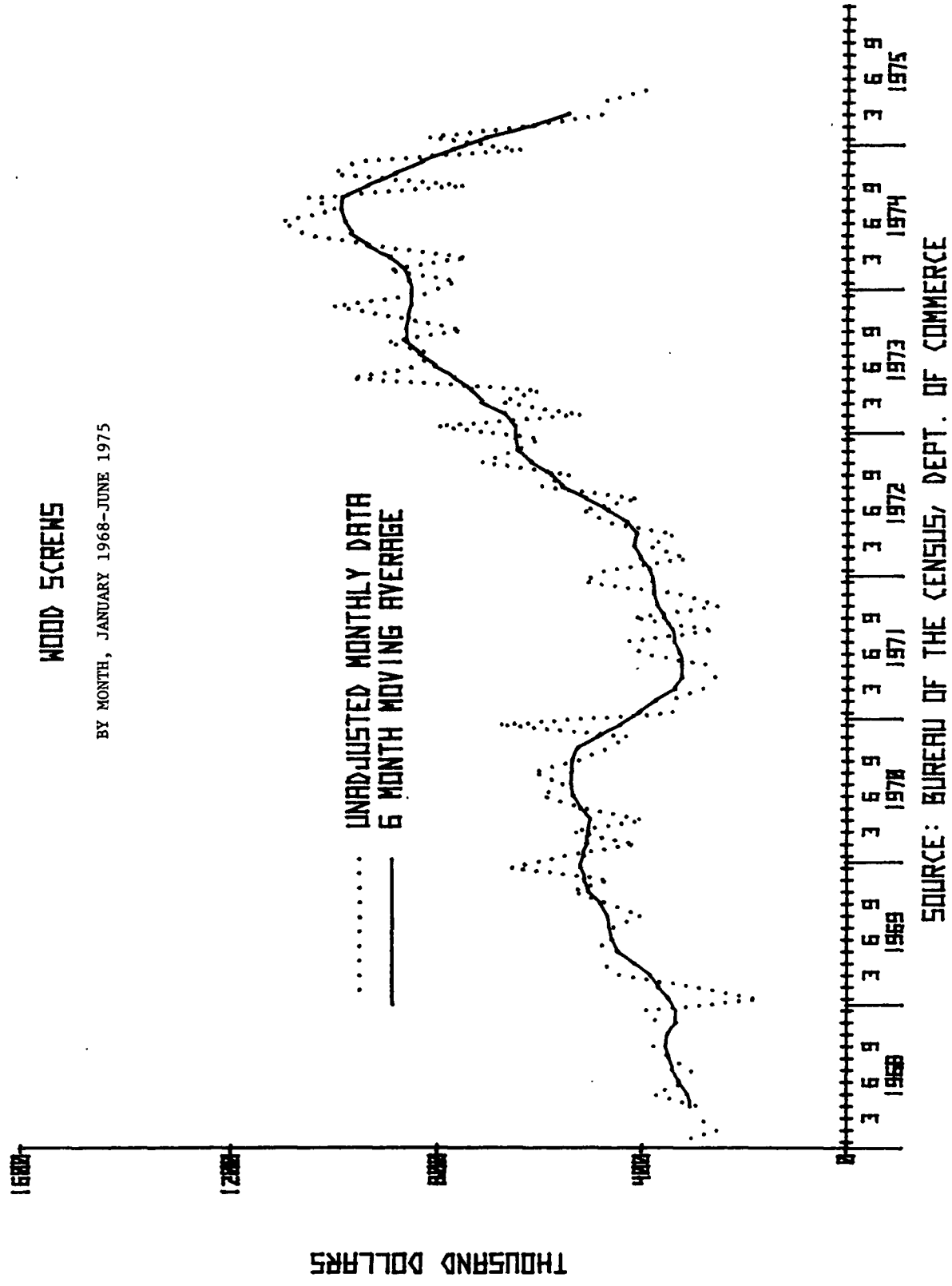

VALUE OF IMPORTS TSUS 646.49
WOOD SCREWS
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
THOUSAND DOLLARS
16000
12000
8000
4000
0
1968
1969
1970
1971
1972
1973
1974
1975
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 10

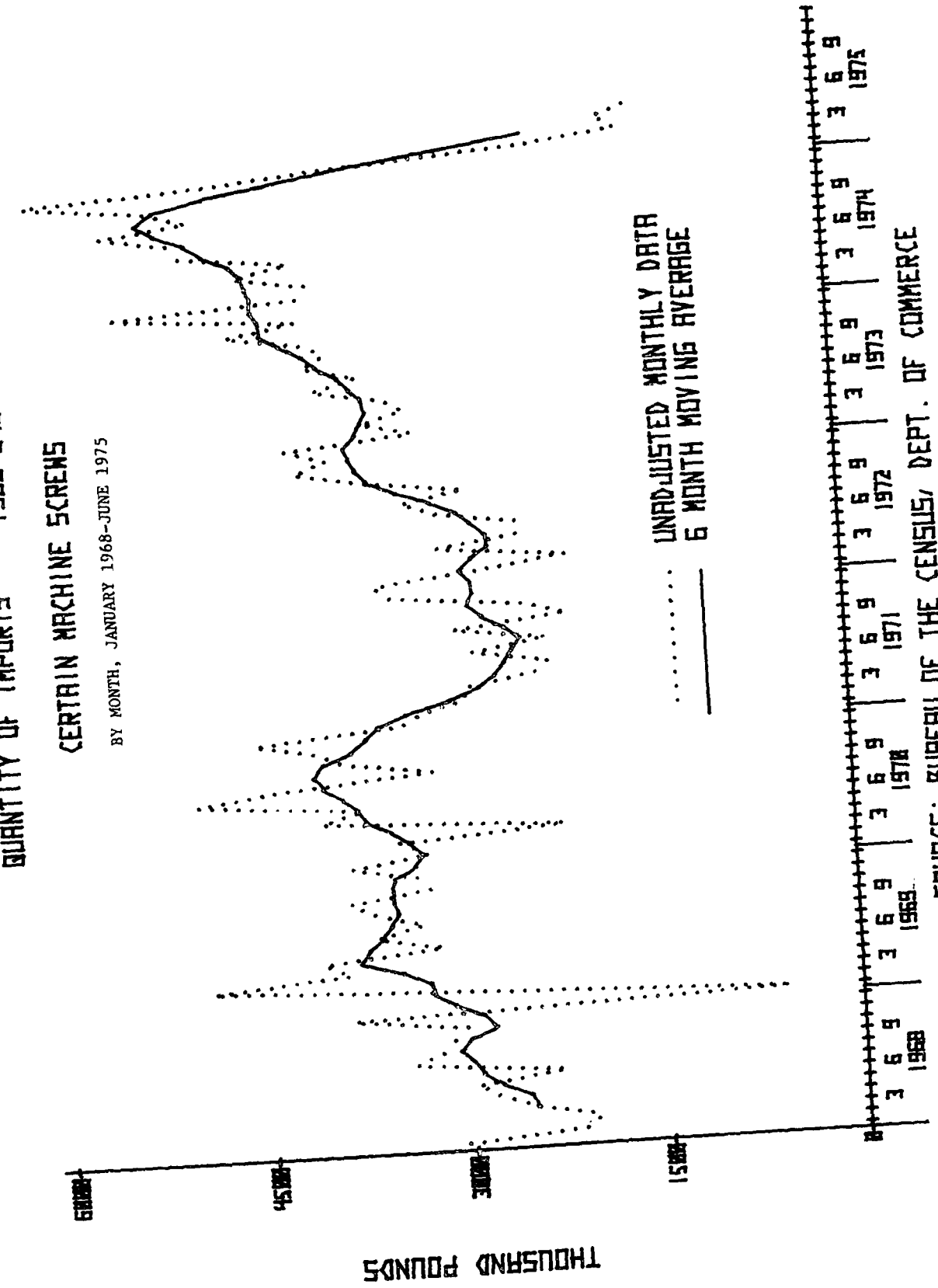

QUANTITY OF IMPORTS TSUS 646.58
CERTAIN MACHINE SCREWS
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
THOUSAND POUNDS
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 11

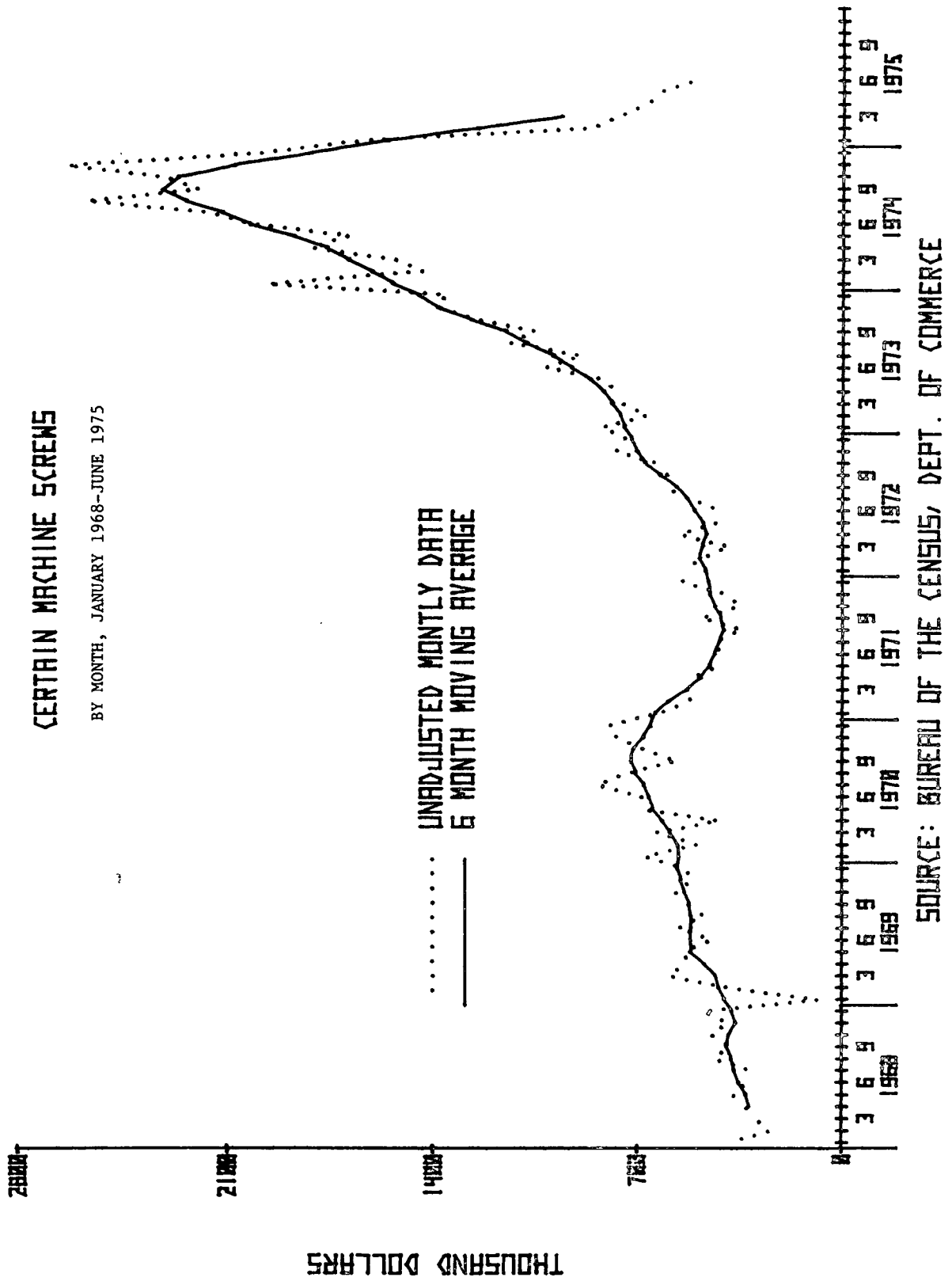

VALUE OF IMPORTS TSUS 646.58
CERTAIN MACHINE SCREWS
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTLY DATA
6 MONTH MOVING AVERAGE
THOUSAND DOLLARS
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 12

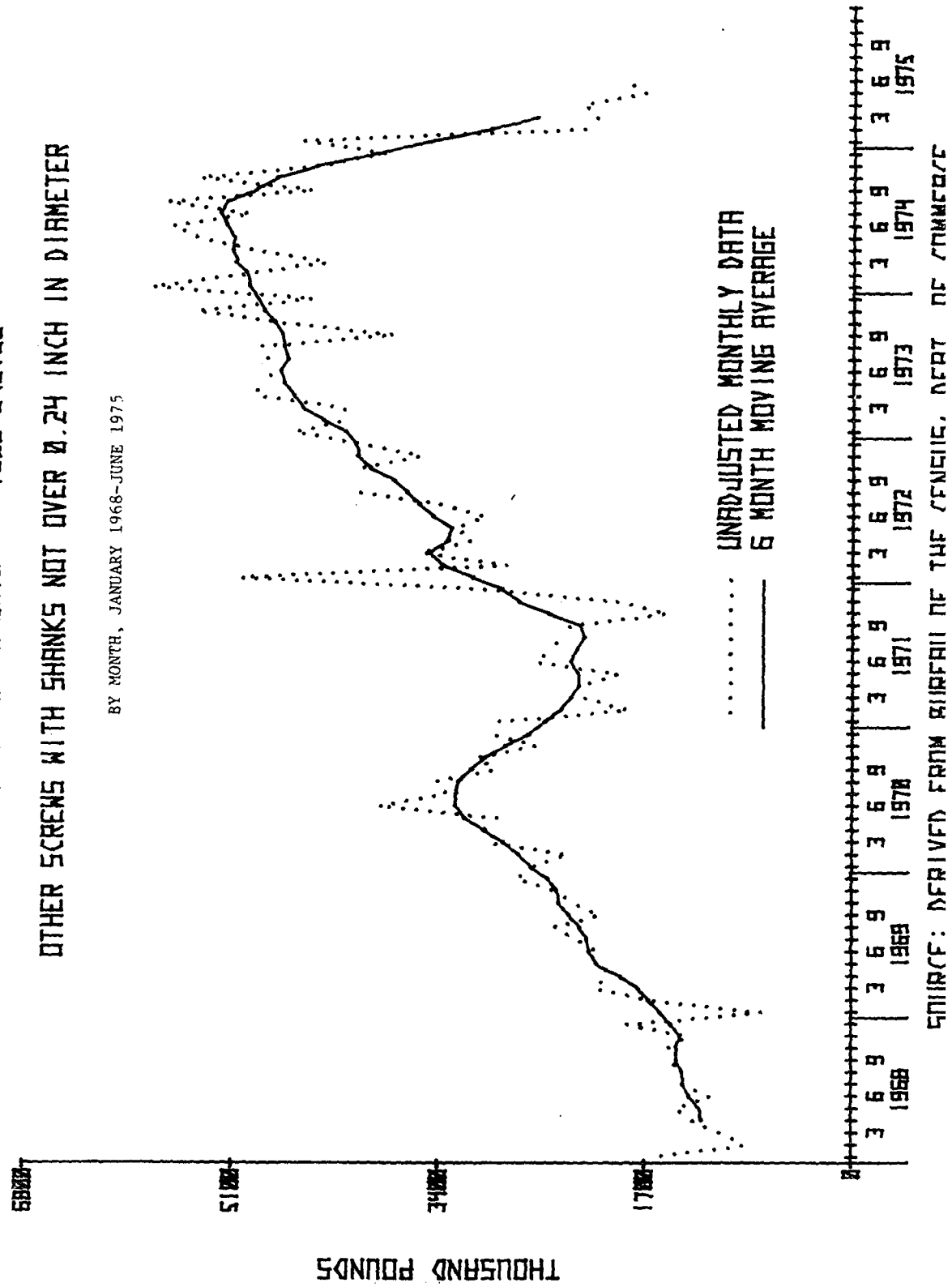

QUANTITY OF IMPORTS TSUS 646.60
OTHER SCREWS WITH SHANKS NOT OVER 0.24 INCH IN DIAMETER
BY MONTH, JANUARY 1968-JUNE 1975
THOUSAND POUNDS
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
1968
1971
1972
1973
1974
1975

FIGURE 13

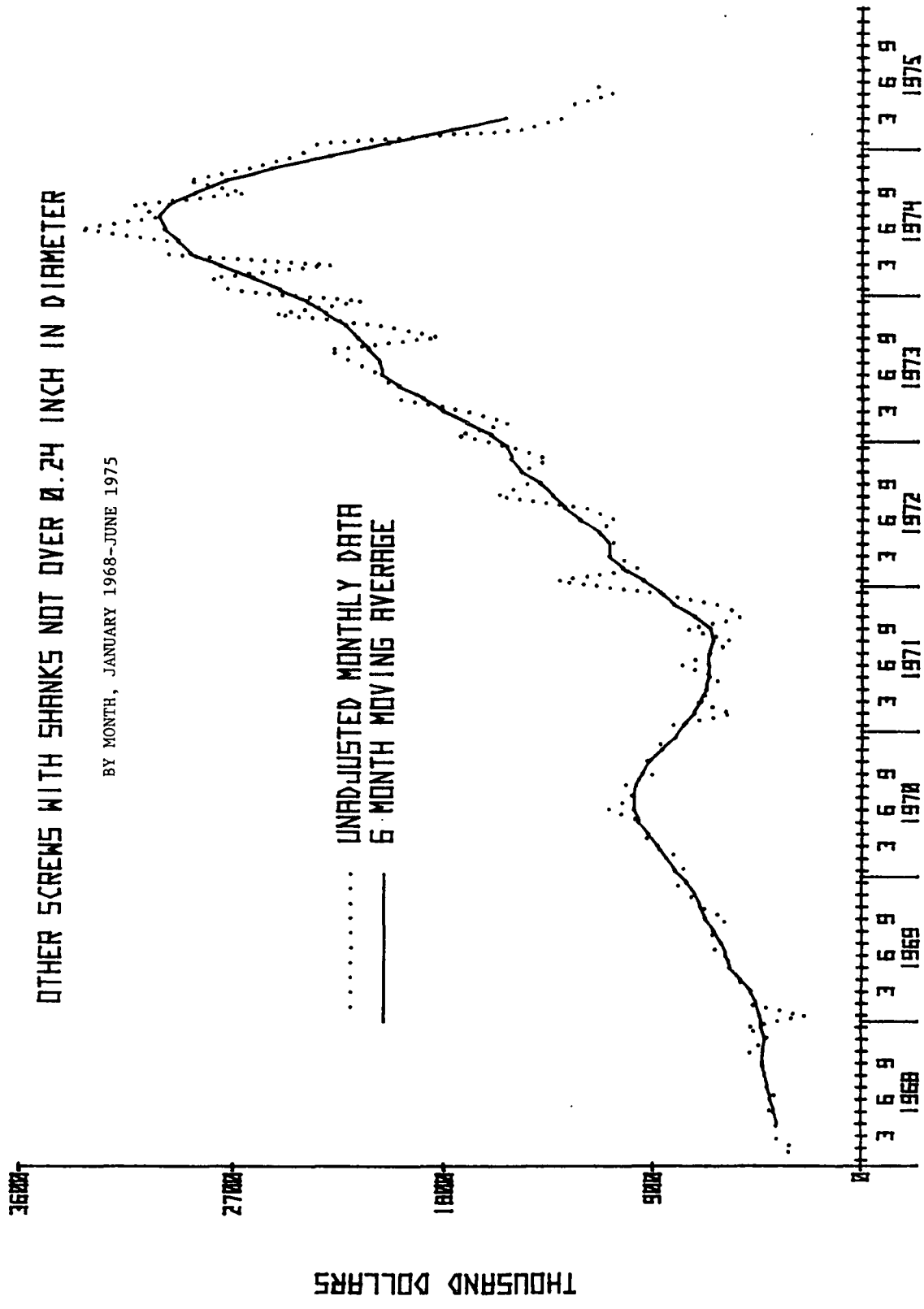

VALUE OF IMPORTS TSUS 646.60
OTHER SCREWS WITH SHANKS NOT OVER 0.24 INCH IN DIAMETER
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
THOUSAND DOLLARS
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 14

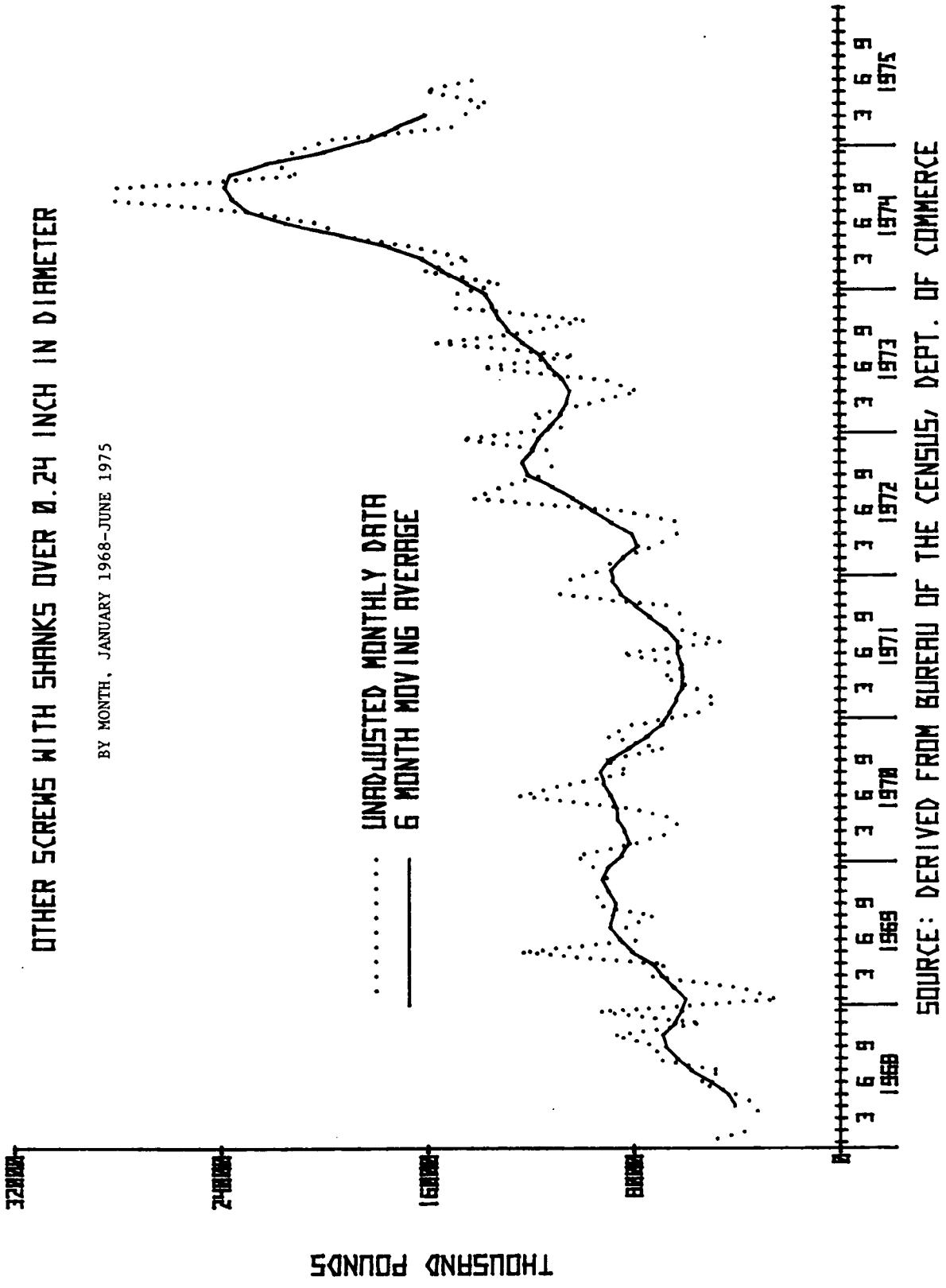

QUANTITY OF IMPORTS TSUS 646.63
OTHER SCREWS WITH SHANKS OVER 0.24 INCH IN DIAMETER
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
THOUSAND POUNDS
SOURCE: DERIVED FROM BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 15

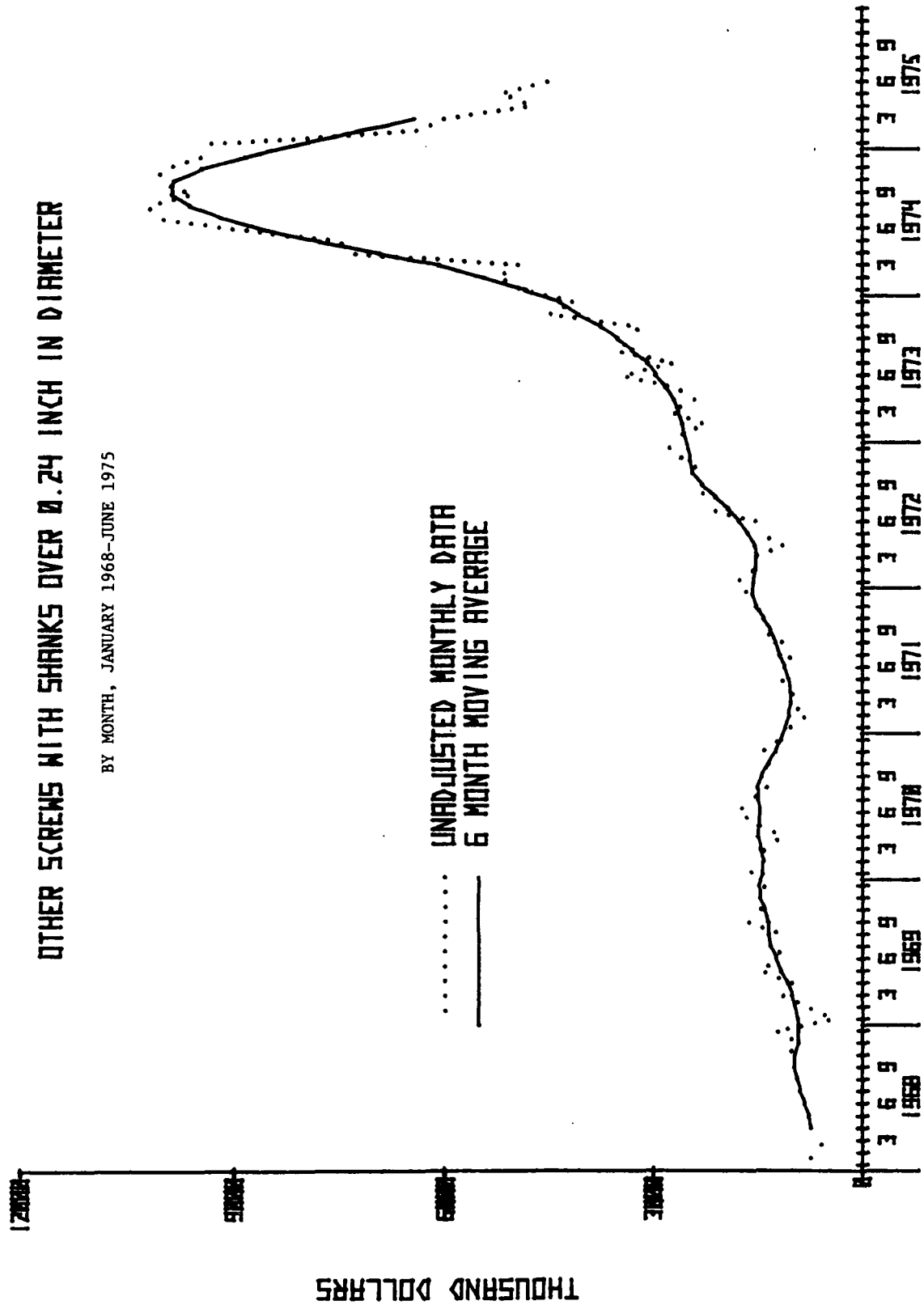

VALUE OF IMPORTS TSUS 646.63
OTHER SCREWS WITH SHANKS OVER 0.24 INCH IN DIAMETER
BY MONTH, JANUARY 1968-JUNE 1975
UNADJUSTED MONTHLY DATA
6 MONTH MOVING AVERAGE
THOUSAND DOLLARS
SOURCE: BUREAU OF THE CENSUS, DEPT. OF COMMERCE

FIGURE 16

VALUE OF IMPORTS TSUS 646.79

CANADIAN ORIGINAL MOTOR-VEHICLE EQUIPMENT (FASTENERS)

BY MONTH, JANUARY 1968-JUNE 1975

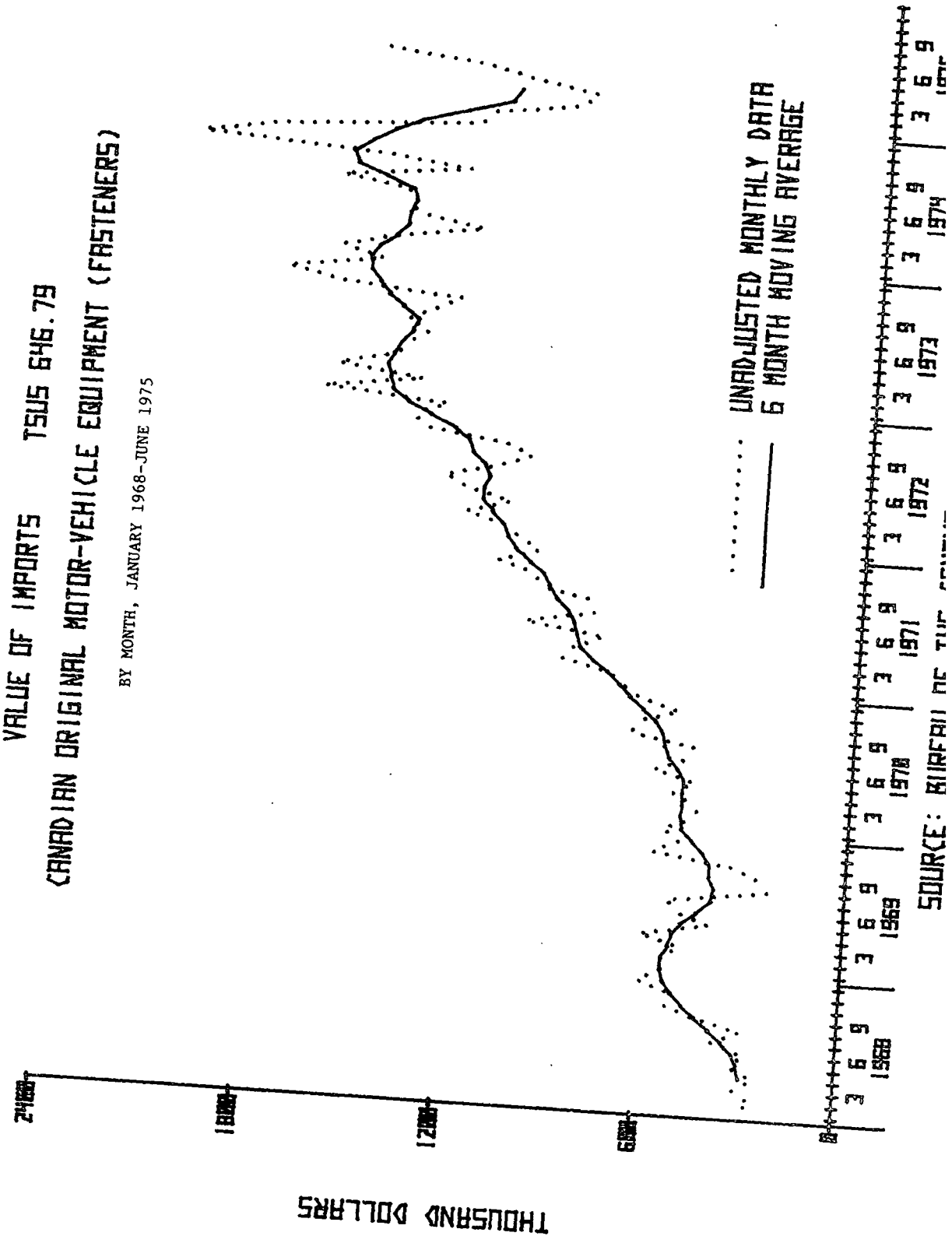
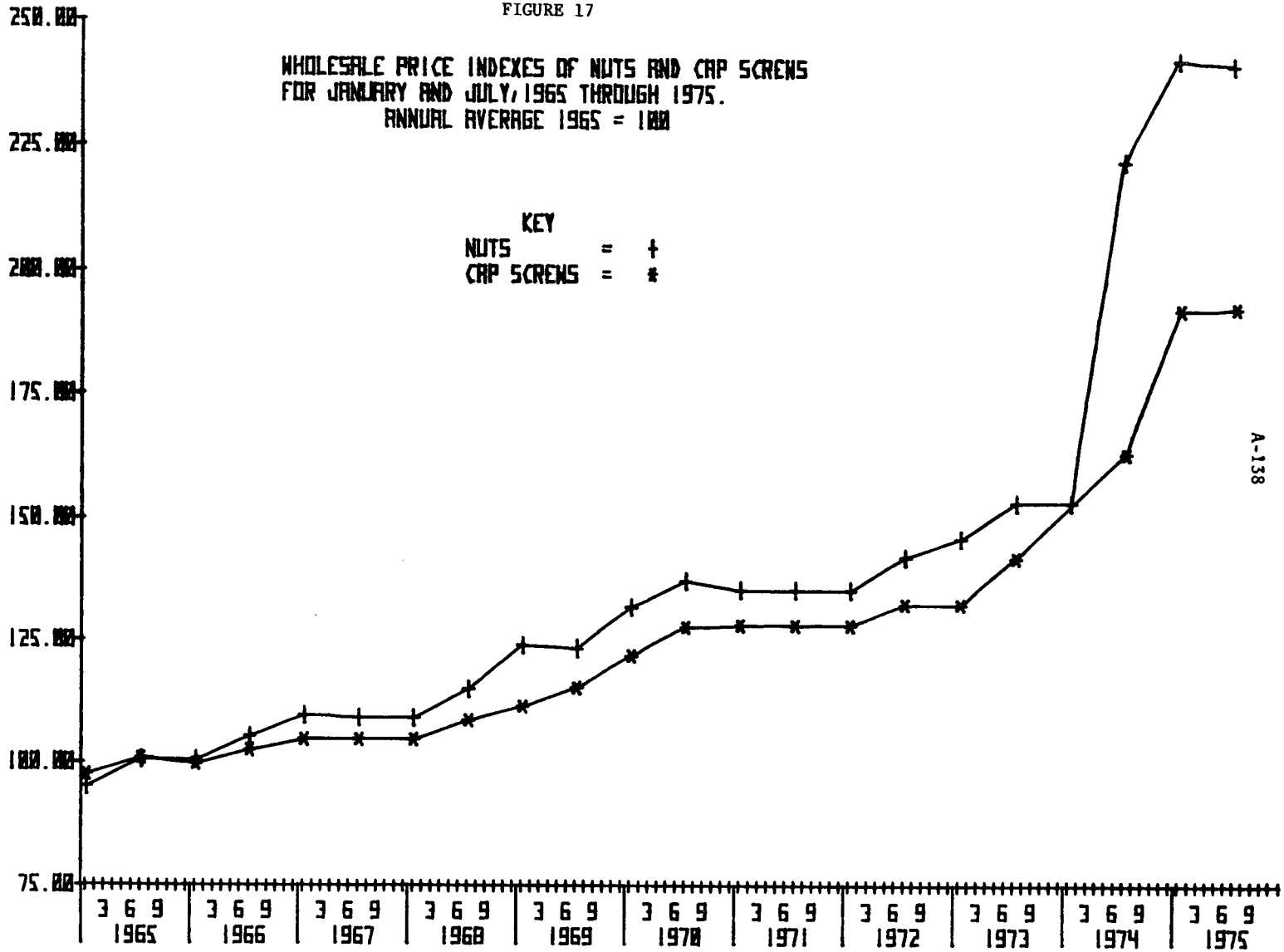


FIGURE 17



SOURCE: DERIVED FROM PUBLISHED AND UNPUBLISHED STATISTICS SUPPLIED BY BUREAU OF LABOR STATISTICS.

APPENDIX C

FASTENER NOMENCLATURE

Controversies Concerning Fastener Nomenclature

Standard versus special

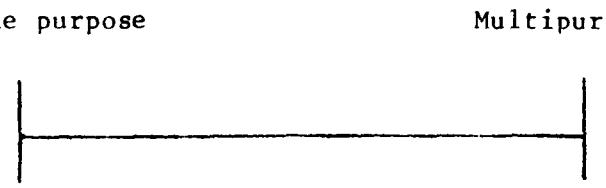
Nearly every witness who testified before the Commission during the public hearing on TA-201-2 mentioned the terms "standard" and "special" with reference to fasteners. This section will briefly discuss the characteristics which distinguish "standard" from "special" fasteners. An understanding of these characteristics may help to determine the usefulness of the "standard" versus "special" distinction in the instant investigation.

Based on trade information developed from briefs, fieldwork, questionnaires, trade journals, and transcripts, there are two characteristics that distinguish 'standard" fasteners from "special" fasteners. These characteristics do not relate to the physical properties of the product but rather to its present use in commercial trade.

The first characteristic is the volume of trade in the particular item. This characteristic is expressed pictorially below as a continuum ranging from very low volume items to very high volume items.

VOLUME OF TRADE

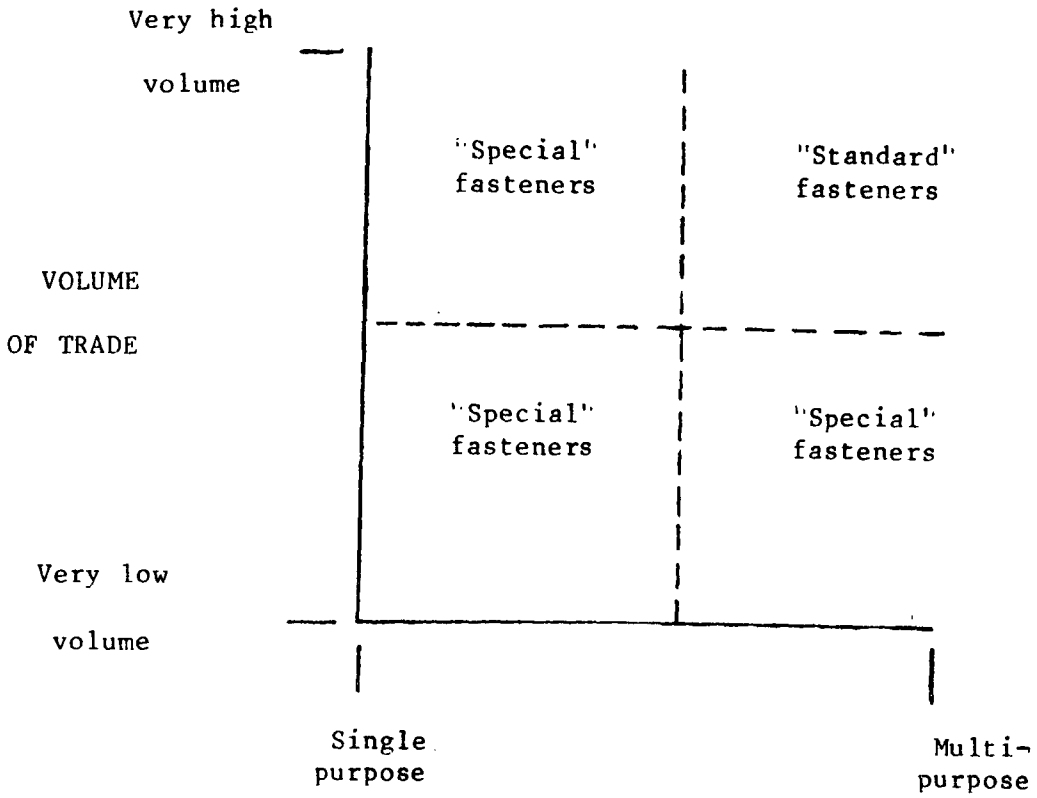
The second characteristic is the number of commercial applications for the particular item. This characteristic is expressed pictorially below as a continuum ranging from single¬purpose (limited¬purpose) items to multipurpose (commodity¬type) fasteners.



The figure on the next page, derived by combining the two above¬mentioned continuums, expresses the whole range of fastener products in terms of volume of trade and number of commercial applications. The fastener referred to in the trade as a "standard" fastener is a fastener which is both a high¬volume item and a multipurpose (commodity¬type) fastener. Therefore, "standard" fasteners would occupy the upper right portion of the figure.

It must be noted that the dash lines drawn to distinguish high from low volume on the vertical line and limited purpose from multi¬purpose on the horizontal line are completely arbitrary.

The fastener referred to in the trade as a "special" fastener is a fastener which is either a low¬volume item or a limited¬purpose fas¬tener. "Special" fasteners would then occupy the upper left, lower left, and lower right portion of the figure. Once again, the lines drawn are completely arbitrary.


Very high
volume
"Special"
fasteners
"Standard"
fasteners
VOLUME
OF TRADE
"Special"
fasteners
"Special"
fasteners
Very low
volume
Single
purpose
Multi-
purpose
NUMBER OF COMMERCIAL APPLICATIONS

It should also be noted that the relative position of a particular fastener in the above figure can change over time. During the public hearing, testimony was heard that within 10 years many fastener items commonly called locknuts changed from "special" to "standard" fasteners.

The petition filed by Russell, Burdsall & Ward, Inc., the Industrial Fastener Institute, and the Cap Screw and Special Threaded Products Bureau states that "the designation of 'standard' products is used to distinguish them from custom-made or specialty products." The petition also states that "standard products conform to . . . specification in authorative reference books published by various U.S. standards organizations, and that, as a general rule, standard products are carried in inventory by fastener producers, whereas specialty products are not." Although the observations above are usually correct, the distinction between a "standard" and a "special" fastener is always arbitrary, often ambiguous, and sometimes controversial. The petition does not reveal the fact that some "standard" fasteners cannot be referenced from standards publications, and that many "special" fasteners are carried in inventory.

Fastener Standards, a publication of the Industrial Fastener Institute, a copetitioner, describes the difficulties inherent in the "standard"-"special" distinction:

> A product that may be referred to as standard by one manufacturer or user, might be completely special to another. For example, a producer may manufacture 1,000,000 pieces every week of a given type of product. Because of this quantity, he refers to this as a standard item for his production. In terms of industry usage, however, this may be a special.

Essentially, the term "standard" as it is used here refers to a high¬volume, commodity¬type fastener. The characteristics "high¬volume" and "commodity¬type" do not relate to the physical properties of the product but rather to its present use in commercial trade. Such prod¬uct classification defies consistent application and presents insurmont¬able obstacles to data collection and analysis.

Bolt versus screws

Traditionally higher rates of duty on screws vis¬a vis bolts have created much controversy and led to many classification battles in customs court. This series of litigation culminated on April 17, 1968, in C.D. 3412, MSL Industries v. United States, where certain imported merchandise was invoiced as "Hexagon Socket Head Bolts," and classified as "other screws" under item 646.63, TSUS, yet claimed to be "bolts under item 646.54, TSUS. Judge Richardson stated

> What we are dealing with here are competing eo nomine provisions for bolts and screws, concerning which the court must, among other things, undertake to ascertain their common meanings vis¬a¬vis the merchandise at bar. Plaintiff has cited to us the case of Morris Supply Company v. United States, 52 Cust. Ct. 174, C.D. 2457, as authority for its contention that a capscrew in general and a socket head capscrew in particular is a bolt. And defend¬ant has called our attention to a number of lexico¬graphical authorities which it contends compel the conclusion that capscrews are screws within the meaning of the tariff provisions for screws.

The court found that "although lexicographical authorities place this merchandise in the category of bolts, the tariff schedules indi¬cate an administrative practice of classifying the merchandise as 'screws'

and a clear congressional intent to approve such practice. Held, the court is bound to follow the clear intention of Congress."

In testimony before the Committee on Ways and Means, MSL Industries had claimed that the administrative practice described above was suspect.

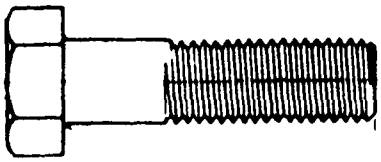
> The United States Cap Screw Service Bureau and its members have, by means of deliberate, conscious misrepresentation, continued their efforts to achieve their predetermined result, which is to change this product from a "bolt" to a "screw".
>
> This trade association acts as "experts" in advising the U.S. Customs officials as to whether an article is, or is not, a bolt. Although such advise is hardly disinterested, it has been particularly effective.

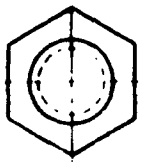
The "clear congressional intent" alluded to in C.D. 3412 refers to subpart D of part 3 of schedule 6 of the TSUS. Judge Richardson stated,

> The schedule makes use of the word (cap screws) only in excluding articles so designated from the duty rate accorded machine screws of certain dimensions. And this exclusionary use of the term "cap screws" takes place under the heading of "screws" in the statute. This would seem to indicate a legislative intent to treat the article designated as "cap screws" as "screws".

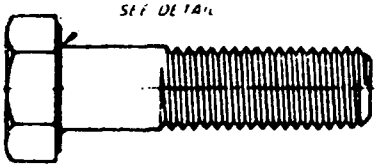
According to current customs procedure, a cap screw is distinguished from the bolts in items 646.54 by the presence of a washer face on the underside of the head of the cap screw. The washer face distinguishing a cap screw from a bolt is presented pictorially on the following page.

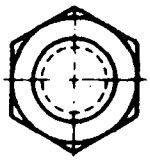
HEX BOLTS

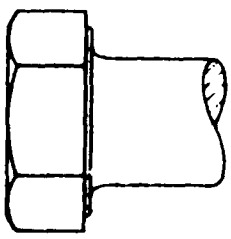




HEX CAP SCREWS
(FINISHED HEX BOLTS)







APPENDIX D

SPECIFICATIONS OF FASTENERS

The specifications of the fasteners for which price and cost data were presented in tables 26, 27, and 28 are as follows:

Cap Screws:

Grade 2, 3/8" - 16 X 1" Hex head cap screws with washer face, plain finish, UNC Class 2A thread
Grade 8, 3/8" - 16 X 1" Hex head cap screws with washer face, plain finish, UNC Class 2A thread

Bolts:

High-strength structural bolts, A325, with heavy hexagon head, washer faced and heavy hexagon nuts, 3/4" X 2"
Round head square neck carriage bolts, full size, black, 3/8" X 3", less nut

Nuts:

Finished hexagon nuts, bright, double chamfered, plain finsih, 1/4" - 20
Finished hexagon nuts, bright, double chamfered, plain finish, 1/4" - 20, made of stainless steel
Finished hexagon nuts, bright, double chamfered, plain finish, 1/2" - 13

Other screws:

Sheet metal screws, Type "A" or "AB," slotted, pan head, hardened, plain finish 10 X 3/4"
Slotted flat head steel wood screws, plain finish, 10 X 1-1/4"
Slotted round head steel machine screws, bright, 1/4" - 20 X 1"
Slotted round head steel machine screws, bright, 1/4" - 20 X 1", made of stainless steel

APPENDIX E

MEMORANDUM OF AUGUST 28, 1975, FROM MR. JONATHAN ROSE, ACTING DEPUTY ASSISTANT ATTORNEY GENERAL, ANTITRUST DIVISION, U.S. DEPARTMENT OF JUSTICE, TO THE HONORABLE WILL E. LEONARD, CHAIRMAN, U.S. INTERNATIONAL TRADE COMMISSION.

UNITED STATES DEPARTMENT OF JUSTICE

WASHINGTON, D.C. 20530

Address Reply to the
Division Indicated
and Refer to Initials and Number
TEK:JD:DER:TES

 August 28, 1975

Honorable Will E. Leonard
Chairman, United States International
Trade Commission
Washington, D.C. 20436

Re: Bolts, Nuts, and Screws of Iron or Steel (Inv. TA-201-2)

Dear Chairman Leonard:

This letter will set forth the views of the Antitrust Division of the Department of Justice with regard to the relevant economic and competitive issues raised by the newly amended Escape Clause of the Trade Act of 1974, ("Trade Act") (19 U.S.C. §2251, 88 Stat. 2011) in the context of this particular investigation.

As the Executive Agency responsible for analyzing competitive issues before regulatory bodies, the Department of Justice believes it appropriate to place its comments concerning these issues on the record before the International Trade Commission ("Commission") where, as in this matter, they are relevant.*

COMPETITION AND THE ESCAPE CLAUSE

The newly amended Escape Clause has produced major changes from the previous provisions contained in the

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* The interest of the Division in competitive issues in trade matters before the Commission is set out in the Division's briefs in antidumping cases such as In the Matter of the Importation of Aluminum Ingots from Canada (AA 1921-121) August 1, 1973 and In the Matter of Large Power Transformers from France, Italy, Japan, Switzerland, and the United Kingdom (AA 1921-86/90) April 5, 1971.

Trade Expansion Act of 1962. That Act provided a scheme for relief from import competition for industries which filed complaints before the Commission seeking import relief, linking qualification for relief to a standard requiring causation between specific trade concessions granted by the United States and subsequent increases in imports. In the Trade Act, Congress abandoned this test for qualification. Now, for the first time, the Commission investigates and reports to the President "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 producing a like or competitive article" (19 U.S.C. 225 (b) (1)). This substantially moderated criterion for relief eligibility rests on a finding to be made by the Commission that serious injury or the threat thereof exists in an industry.

However, the Commission, in responding to an Escape Clause request, is directed by Congress to recommend relief from import competition only after it has considered all economic factors which are relevant to evaluating evidence of increased imports and injury to a domestic industry. Sec. 201 (b)(2) of the Trade Act (19 U.S.C. 2251 (b)(2)). We believe an important economic factor relevant to the Commission's analysis in these matters should be the condition of domestic competition in the industry and the possibility that anticompetitive actions by firms in that industry themselves have substantially produced the effects complained of. In the Trade Act Senate Report (No. 93-1298) the Commission is instructed, for example, to consider "conditions unrelated to imports" existing in the domestic industry that could naturally lead to injury factors often ascribed to imports (p. 121). Illustrations of such conditions were poor management or obsolescent plant. The pressure of domestic competition often causes some firms to suffer impacts that can on the surface be easily blamed on imports but are really caused by domestic management actions. It is important, we believe, that the Commission

examine the background of any increases in imports to be sure that those increases did not result from the legitimate quest for economic survival by independent fastener contractors, foreclosed from access to domestic fastener production by actions of the domestic industry, which are leading and are intended to lead to anticompetitive concentration in this industry. The intent of Congress in amending the Escape Clause is not to protect domestic industry from the natural consequences of its own decisions especially where these decisions have an anticompetitive purpose and effect.

RELEVANT COMPETITIVE AND ECONOMIC ISSUES IN THIS INVESTIGATION

One important issue in the fastener investigation appears to be vertical integration in the industry. From our preliminary examination we note the beginnings of a trend away from a dual distributorship system, where manufacturers sell products both at retail and through independent distributors, toward a single system involving fewer independent distributors. To the extent that domestic products become less available to the independent distributor, imports may be the only source of supply to those who wish to remain in the market. Thus, it is questionable whether in such a situation, an increase in imports can be considered an injury to the domestic industry. It may be that the imports were required to supply independent distributors and thus to maintain domestic competition in the face of the foreclosure of these independents from access to domestic fasteners. If the domestic industry is experiencing mere short-term sales loss, as a by-product of a policy of furthering concentration, imposition of Escape Clause restrictions on imports will enable integrated firms to dominate the long-term market at the expense of the American consumer. The Escape Clause should not be an instrumentality for the excessive concentration of any U.S. industry. Certainly, this is an issue the Commission should examine closely in the investigation.

Another relevant economic factor important to a full and fair analysis in this matter is the impact of unsettled economic conditions. The recession and recent shortages of finished products, raw materials, machine tools, and factory fuel felt in varying degrees by different countries contributed to fluctuating domestic and foreign production and import levels in metalworking industries. Therefore, any analysis of import injury should clearly set out the statistical adjustments necessary to compensate for these factors, which are not related to the traditional concept of import-related injury under the trade laws.

The Commission should also consider the broad range of fastener products which enter this country in "basket" tariff classifications.* Many differing, non-competing products may enter into a category of fasteners, not all of which may be produced in quantity by the domestic industry. It will be a difficult task for the Commission to segregate these products and examine their competitive impacts on the domestic industry, but we believe it must be done in order to determine whether increasing import penetration of the domestic market has occurred in products which are truly competitive with continuing domestic products lines. Surely, a recommendation for import relief from the Commission by tariff classification could unfairly bar certain products not causing import injury and in fact providing the bulk of necessary domestic supplies.

We hope that these comments will be of assistance to the Commission in its investigation in this matter.

Sincerely,

Jonathan Rose

Jonathan Rose
Acting Deputy Assistant Attorney General
Antitrust Division

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* For example, TSUS 646.54 is entitled "Bolts and bolts and nuts imported in the same shipment." The information filed with the Commission in this matter indicates there are literally hundreds of non-competing products in this category.

Library Cataloging Data

U.S. International Trade Commission.
Bolts, nuts, and screws of iron or steel. Report to the President on investigation no. TA-201-2 under section 201 of the Trade act of 1974. Washington, 1975.

39, A1-A153 p. 27 cm.
(USITC Pub. 747)

1. Bolts and nuts. 2. Screws. I. Title.