

UNITED STATES TARIFF COMMISSION

**HIGH FIDELITY STEREO AND RELATED EQUIPMENT:
H. H. SCOTT, INC.,
MAYNARD, MASSACHUSETTS**

**Report to the President
On Investigation No. TEA-F-13
Under Section 301 (c) (1) of the Trade Expansion Act of 1962**



**TC Publication 355
Washington, D. C.
January 1971**

UNITED STATES TARIFF COMMISSION

GLENN W. SUTTON

BRUCE E. CLUBB

WILL E. LEONARD, JR.

GEORGE M. MOORE

KENNETH R. MASON, Secretary

Address all communications to
UNITED STATES TARIFF COMMISSION
WASHINGTON, D.C. 20436

REPORT TO THE PRESIDENT

U.S. Tariff Commission
January 5, 1971

To the President:

In accordance with section 301(f)(1) of the Trade Expansion Act of 1962 (76 Stat. 885), the U.S. Tariff Commission herein reports the results of an investigation made under section 301(c)(1) of the Act in response to a petition filed by a firm.

On November 6, 1970, H. H. Scott, Inc., Maynard, Massachusetts, filed a petition for a determination of its eligibility to apply for adjustment assistance. The Commission instituted an investigation (TEA-F-13) on November 13, 1970, to determine whether, as a result in major part of concessions granted under trade agreements, articles like or directly competitive with certain loudspeakers, audio-frequency electric amplifiers, radio receivers, and radio-phonograph combinations produced by the aforementioned firm, are being imported into the United States in such increased quantities as to cause, or threaten to cause, serious injury to such firm.

Public notice of the investigation was given in the Federal Register (35 F.R. 17809) on November 19, 1970. No public hearing was requested, and none was held.

In the course of its investigation, the Commission obtained information from domestic producers and importers of high-fidelity stereo and related equipment and from its files.

Finding of the Commission

On the basis of its investigation, the Commission, being equally divided, 1/ makes no finding under section 301(c)(1) of the Trade Expansion Act of 1962 with respect to whether articles like or directly competitive with certain loudspeakers, audio-frequency electric amplifiers, radio receivers, and radio-phonograph combinations produced by H. H. Scott, Inc., Maynard, Mass. are, as a result in major part of concessions granted under trade agreements, being imported in such increased quantities as to cause, or threaten to cause, serious injury to such firm.

1/ Presiding Commissioner Sutton and Commissioner Leonard found in the negative; Commissioners Clubb and Moore found in the affirmative.

Views of Commissioners Sutton and Leonard

Since the conditions imposed by section 301(c)(1) of the Trade Expansion Act of 1962 have not been satisfied, our determination in the instant investigation is in the negative. The statute contains four conditions, each of which must be satisfied for an affirmative determination. The conditions are:

1. Articles like or directly competitive with the high-fidelity stereo and related equipment produced by H. H. Scott, Inc., are being imported in increased quantities.
2. The increased imports are in major part the result of concessions granted under trade agreements.
3. The petitioning firm is seriously injured or threatened with serious injury.
4. The increased imports (resulting in major part from trade-agreement concessions) have been the major factor causing or threatening to cause serious injury.

Based on the facts in this investigation, we have concluded that condition (2) has not been met.

The facts do not show that the increased imports are in major part the result of concessions granted under trade agreements. The largest reductions in the rates of duty applicable to the types of high-fidelity stereo and related equipment produced by the petitioning firm took place, in the main, in years prior to, and including 1951. For example, the rate of duty applicable to solid-state radio receivers and tuners, which accounted for most of the imports during the period from January 1965 to June 1970, was reduced by trade agreements from

the 1930 statutory rate of 35 percent ad valorem to 15 percent ad valorem in 1948, and to 12.5 percent ad valorem in 1951. Subsequent reductions of 0.5 percent ad valorem occurred in 1968, 1969, and 1970. In 1970 the rate for such receivers was 11 percent ad valorem. Imports of such high-fidelity equipment, the great bulk of which was from Japan, were not a significant factor until the mid-1960's. The rapid increase in imports from Japan during the period 1965-69 and January-June 1970 as shown in the factual section of this report could not have been caused by the duty reductions that occurred almost two decades earlier.

The early competitive advantage enjoyed by Japanese producers as a result of transferring their solid-state technology in other consumer electronic products, such as transistor radios, to high-fidelity products, and the cost advantages (high-fidelity equipment is a relatively high labor intensive product) that accrued to the producers in Japan, enabling them to maintain quality and still keep prices sufficiently below the prices charged by the petitioning firm for comparable high-fidelity equipment, were as much, if not more, responsible for the increased imports than trade-agreement concessions.

In relating concessions to increased imports, our colleagues often find it useful to compare the prices charged by domestic producers with the prices charged by importers for the comparable products both with and without the duty reductions. If the importer's price with a pre-concession duty is as high as or higher than the domestic producer's price, they usually conclude that the concessions in major

part resulted in the increased imports. Even that test fails in the instant case. A comparison in the case of a certain high-fidelity stereo receiver sold in large volume by the petitioner indicates that even if the 1930 statutory rate of 35 percent ad valorem were in effect in 1970, comparable imported receivers would still be priced lower than the product sold by the petitioner. Admittedly the price advantage would be narrowed considerably from the apparent 20 percent to 25 percent differential now enjoyed by importers, but it is hard to imagine that the Japanese producers would not utilize their cost advantage over domestic producers to cut their profit margins somewhat in order to achieve their desired volume of sales.

For the foregoing reasons it is our judgment that the increased imports were not in major part the result of concessions granted under trade agreements. We have, therefore, made a negative determination.

Views of Commissioners Clubb and Moore

On November 6, 1970, the H. H. Scott Company of Maynard, Massachusetts, filed a petition seeking adjustment assistance pursuant to section 301 of the Trade Expansion Act of 1962. The petition alleged that, as a result of tariff concessions, hi-fi equipment like or directly competitive with that produced by Scott is being imported in such increased quantities as to cause, or threaten to cause, serious injury to the petitioner. We agree, and, accordingly, hold that the H. H. Scott Company is eligible to apply for adjustment assistance as provided in section 301 of the Act.

Section 301 of the Trade Expansion Act provides that the Tariff Commission is to determine that a firm is eligible to apply for adjustment assistance if the following four conditions exist:

- (1) imports of a product like or directly competitive with an article produced by the firm must be increasing;
- (2) the increased imports must be a result in major part of concessions granted under trade agreements;
- (3) the firm must be seriously injured, or threatened with serious injury; and,
- (4) the increased imports resulting from trade-agreement concessions must be the major factor in causing or threatening to cause the serious injury.

Each of these requirements is met in this case.

Increased imports

H. H. Scott produces a full line of hi-fi equipment including stereo receivers, tuners, amplifiers, compact modules, consoles and speaker systems. As indicated in the factual section of this report, the value of imports of all of these items together has increased from about \$1.5 million in 1965 to \$19.6 million in 1969, and a further increase has apparently taken place in 1970.

Moreover, the largest increase in imports occurred in stereo receivers, the article which accounted for the largest single portion of Scott's sales. The value of imports of stereo receivers jumped from \$651,000 in 1965 to \$10.0 million in 1969. Accordingly, it is clear that imports of an article "like or directly competitive with" an article produced by Scott are increasing.

In major part

Before a petitioner can be found eligible to apply for adjustment assistance, the Commission must find that the increased imports resulted in major part from trade-agreement concessions. This requirement is met if, but for the concessions, imports would not be at substantially their present levels.

The rate of duty on hi-fi equipment has been reduced pursuant to trade agreements as follows:

Rates of duty applicable on--	:Radio receivers: and tuners		Radio- : phono- : graph	Radio- : tape : player	Amplifiers : and : loud- : speaker : systems
	: Solid : state	: Tube : type	: combina- : tions	: combina- : tions	
June 18, 1930-----	: 35%	: 35%	: 35%	: 35%	: 35%
Jan. 1, 1939-----	: 25%	: 25%	: 25%	: 25%	: 25%
Jan. 1, 1948-----	: 15%	: 15%	: 15%	: 15%	: 15%
June 6, 1951-----	: 12.5%	: 13.75%	: ^{1/} 13.75%	: 13.75%	: 13.75%
Aug. 31, 1963-----	: 12.5%	: 12.5%	: 13.75%	: ^{2/} 10%	: ^{2/} 15%
Jan. 1, 1967-----	: 12.5%	: 12.5%	: 13.75%	: 10%	: 15%
Jan. 1, 1968-----	: 12%	: 11%	: 12%	: 9%	: 13%
Jan. 1, 1969-----	: 11.5%	: 10%	: 11%	: 8%	: 12%
Jan. 1, 1970-----	: 11%	: 8.5%	: 9.5%	: 7%	: 10%
Jan. 1, 1971-----	: 10.4%	: 7%	: 8%	: 6%	: 9%
Jan. 1, 1972-----	: 10.4%	: 6%	: 6.5%	: 5%	: 7.5%

1/ This rate was reduced to 12.5 percent as of July 1, 1962, and to 11.5 percent as of July 1, 1963.

2/ This rate was a result of combining several different rates.

As the foregoing table indicates, the rate of duty on all hi-fi equipment in the Tariff Act of 1930 was 35 percent ad valorem. Over the years this has been reduced pursuant to trade agreements such that different rates apply to different items, but all ranged between 7 percent and 11 percent ad valorem in 1970, with further reductions scheduled to take place in 1971 and 1972.

It is not possible to make a precise determination of what effect these reductions in duty had on the competition between domestic and imported hi-fi equipment, because the models of one company are not exactly the same as the models produced by its competitors, both foreign and domestic. Information obtained by the Commission

indicates, however, that in general the imported products appear to sell at prices about 20 percent to 25 percent lower than the most similar domestic product. This price differential is almost exactly the amount by which the duty has been reduced, indicating that if the concessions had not been made, the imported product would be selling in the same general price range as the domestic product.

In the crucial area of stereo receivers, for example, Scott's most popular model sold to dealers for ***, while imported receivers with similar performance and characteristics sold for between *** and ***. If the trade agreement concessions had not been granted, the imported receivers would probably be priced in the *** to *** category, thus eliminating most of the price advantage now available to the imported product. Accordingly, we conclude that, but for the concessions, imports would not be at substantially their present levels, and that, therefore, they have increased in major part as a result of concessions within the meaning of the Act.

Serious injury

The statute requires that before adjustment assistance can be granted to a firm, the Commission must find that the firm has been seriously injured by concession-generated increased imports.

Serious injury for purposes of the Trade Expansion Act is an important, crippling, or mortal injury; one having permanent or lasting consequences. Such injuries are distinguished from the less important and temporary injuries which domestic concerns are expected to absorb without governmental assistance. Pianos and Parts, Inv. No. TEA-I-14 (Dec. 1969), p. 6.

The question here is whether that degree of injury, or the threat of it, is present in this case.

Scott's recent history reveals a company in substantial and increasing distress. * * *

At issue here is whether this evidence of declining sales, reduced profits, and then ominous losses, together with other evidence of financial difficulties, indicates that the company has been seriously injured within the meaning of the Act. We believe that it does. It seems clear that in the past three years the company has been set upon a course which must eventually lead to its demise if some assistance is not obtained. This is serious injury by any standard.

Major factor

The final requirement of the Act is that concession-generated increased imports must be the major factor in causing the serious injury. This condition is met when, but for the concession-generated increased imports, the serious injury would not have occurred.

It seems clear in this case that increased imports were not the only factor which caused serious injury to Scott. * * *

Scott could have weathered these storms, however, had it not at the same time been faced with increasing competition from imported hi-fi equipment which, because of trade-agreement concessions, enjoyed a substantial price advantage over the Scott products. For example, of all the hi-fi equipment sold by importers, stereo receivers showed the largest increase in recent years. During this same period Scott's sales of stereo receivers were being cut * * *. Scott has also lost

sales in other areas when imports have become increasingly important, and has been unable to expand its sales in others. Thus, although Scott had other problems, we conclude that, but for the competitive pressures of concession-generated increased imports, Scott would not have been seriously injured. Accordingly, the concession-generated increased imports have been, within the meaning of the Act, the major factor in causing serious injury to Scott.

Conclusion

Since all the requirements of the statute have been met, we determine that petitioner is eligible to apply for adjustment assistance pursuant to section 301 of the Trade Expansion Act.

INFORMATION OBTAINED IN THE INVESTIGATION

Description of the articles under investigation

H. H. Scott, Inc. has produced high fidelity stereophonic tuners, amplifiers, receivers, compacts, and consoles, and high fidelity speaker systems, all intended principally for use in home entertainment. For the sake of convenience and brevity, hereafter in this report (as in common parlance), such articles, collectively, are referred to as hi-fi equipment.

High fidelity (or hi-fi) refers, in this context, to the capability of equipment to reproduce sound signals, even weak signals (from radio broadcasts or directly from records or tapes), that are nearly identical to the original sound (i.e., the same shapes and frequencies of the sound wave), and the capability to reject extraneous signals (noise and hum). A hi-fi system must be capable of handling all sounds audible to the human ear, from about 30 to 15,000 cycles per second. Universal standards for hi-fi equipment do not exist, but certain typical standards of performance and characteristics have been generally accepted by the trade. Those standards and characteristics are outlined below in the descriptions of the individual hi-fi components considered in this investigation.

Stereophonic equipment (hereafter referred to as stereo equipment) for home entertainment refers to devices capable of receiving and/or amplifying two or more channels of sound, with each channel of sound directed to a separate speaker system. The separate channels of sound may be generated from two or more tracks on a stereo record

or stereo tape, or by a radio station transmitting signals either simultaneously on AM (amplitude modulation) and FM (frequency modulation) channels or on an FM-multiplex channel. FM-multiplex stereo sound consists of a time-shared signal, that is a signal switched (multiplexed) from one channel to another at a speed undistinguishable to the listener. ^{1/}

A stereo tuner is a device (either as a separate unit or as a part of a stereo receiver) designed to receive FM and/or AM radio signals suitable to be amplified by an amplifier. A tuner accepts, by means of an antenna, a radio wave transmitted by a radio station and converts it into a discrete electrical signal strong enough to be amplified. Hi-fi stereo tuners generally have a dealers' cost of \$60 or more. Typical performance is as follows (for the FM tuner): usable sensitivity equal to, or less than, 5 microvolts; total rated distortion equal to, or less than, 1 percent; and wide band signal-to-noise ratio equal to, or more than, 50 db. for both monophonic and stereophonic signals.

A stereo amplifier is a device designed for amplifying sound signals for reproduction by loudspeakers. An amplifier takes a weak signal from a tuner, record, or tape, and increases the sound signal to a power sufficient to energize speaker systems with negligible distortion and wide frequency response. Hi-fi stereo amplifiers usually have a dealers' cost of \$60 or more, and meet the following minimum standards:

^{1/} Before multiplex equipment became available, FM stereo broadcasts could only be received by using two radio receivers; the two signals were broadcast by two different radio stations.

10 watts continuous output (RMS) 1/ per channel at no more than 1 per cent total harmonic distortion (THD); and unconditional stability.

A stereo receiver consists of a tuner and amplifier. Hi-fi stereo receivers generally have a dealers' cost of \$120 or more, and meet the typical performance standards outlined above for both the tuner and amplifier.

A speaker system of the dynamic type consists of an enclosure, containing one or more mounted loudspeaker units, equipped for ready connection to a stereo amplifier, receiver, or compact module. A speaker system is a product of both electrical and acoustical engineering. A hi-fi speaker system takes the electrical signals' fed by an amplifier and converts those signals into corresponding variations in sound, thus reproducing the original sound source with only negligible distortion, if any. In a hi-fi stereo system, at least two speaker systems are used. Typically, each speaker system includes two or more loudspeaker units, each constructed to handle a particular portion of the sound spectrum, e.g., a large speaker unit for handling the low-frequency tones (the woofer), an intermediate-size speaker unit for handling the mid-range frequency tones (mid-range driver), and a small speaker unit for handling the high frequency tones (the tweeter). In a final analysis, it is the speaker system that determines the sound quality of the hi-fi system. Hi-fi speaker systems generally have a dealers' cost of \$18 or more; they also meet the following specifications: the loudspeaker unit/s are mounted in a

1/ RMS=root mean square.

rigid enclosure of substantial wall thickness; and the total area of auxiliary opening/s, if any, in the enclosure does not exceed the area of the low-frequency loudspeaker unit.

A stereo compact module contains in one unit a stereo receiver or amplifier and a device for playing records, and/or a device for playing tapes. Loudspeakers are in separate units. Hi-fi stereo compact modules generally have a dealers' cost of \$120 or more, and meet the performance standards outlined above for an amplifier, and for a tuner or receiver, if any.

A stereo console unit contains a stereo receiver, a device for playing records and/or a device for playing tapes, and two speaker systems in a large floor-standing cabinet. Hi-fi stereo consoles generally have a dealers' cost of \$240 or more and meet the performance standards stated above for an amplifier, and a tuner or receiver, if any.

Production of the hi-fi stereo equipment described above requires high-quality materials, exacting engineering standards, advanced manufacturing techniques, and rigorous testing and inspection. In the earlier part of the period under consideration in this investigation, the electronic components (i.e., tuners, amplifiers, and receivers) employed vacuum tubes, but currently almost all such components use solid-state technology, based on tiny, complex semiconductor devices. Modern solid-state components are considered more effective, reliable and durable in performance, than are vacuum tubes.

U.S. tariff treatment

Prior to the effective date of the Tariff Schedules of the United States (TSUS), August 31, 1963, radio receivers and tuners, amplifiers, radio-phonograph combinations, loudspeakers, and radio-tape player combinations were classifiable under Paragraph 353 of the Tariff Act of 1930. Under the TSUS, solid-state and tube-type radio receivers and tuners were classified under item 685.22 until January 1, 1968, when the classification was changed to TSUS item 685.23 for solid-state radio receivers and to item 685.25 for tube-type receivers. Amplifiers and loudspeakers have been dutiable under item 684.70, radio-phonograph combinations under item 685.30, and radio-tape player combinations under TSUS item 678.50.

The rates of duty applicable to the hi-fi equipment considered here are as follows (in percent ad valorem):

Rates of duty applicable on--	: Radio receivers : and tuners		: Radio- : phonograph : combinations	: Radio-tape : player : combinations	: Ampli- : fiers and : loud- : speaker : systems
	: Solid : state	: Tube : type			
June 18, 1930-----	35%		35%	35%	35%
Jan. 1, 1939-----	25%		25%	25%	25%
Jan. 1, 1948-----	15%		15%	15%	15%
June 6, 1951-----	12.5%		13.75%	<u>1/13.75%</u>	13.75%
Aug. 31, 1963-----	12.5%	12.5%	13.75%	<u>2/10%</u>	<u>2/15%</u>
Jan. 1, 1967-----	12.5%	12.5%	13.75%	10%	15%
Jan. 1, 1968-----	12%	11%	12%	9%	13%
Jan. 1, 1969-----	11.5%	10%	11%	8%	12%
Jan. 1, 1970-----	11%	8.5%	9.5%	7%	10%
Jan. 1, 1971-----	10.4%	7%	8%	6%	9%
Jan. 1, 1972-----	10.4%	6%	6.5%	5%	7.5%

1/ This rate was reduced to 12.5 percent as of July 1, 1962, and to 11.5 percent as of July 1, 1963.

2/ This rate was a result of combining several different rates.

* * * * *

The rates of duty applicable to all of the articles considered in the above tabulation have been subject to trade-agreement concessions under the General Agreement on Tariffs and Trade (GATT) beginning in 1948. All such articles were subject to 50-percent (or greater) reductions in duty pursuant to U.S. concessions granted in the Kennedy Round of trade-agreement concessions under the GATT, except for solid-state receivers which were subject to a reduction of about 17 percent.

U.S. consumption

Data on U.S. consumption of hi-fi equipment, by type, during 1965-69 and January-June of 1969 and 1970 are given in the following tabulation, in terms of dealers' cost, in thousands of dollars:

Period	Stereo re- ceivers	Stereo tuners	Stereo ampli- fiers	Stereo com- pact modules	Stereo con- soles	Speaker systems	Total
1965-----	13,651	***	***	3,900	***	11,624	36,577
1966-----	24,465	***	***	7,996	***	15,899	57,250
1967-----	28,400	***	***	11,539	***	18,400	69,774
1968-----	32,414	***	***	20,769	***	25,900	91,183
1969-----	33,037	***	***	20,900	***	28,123	95,960
Jan.-June:							
1969-----	14,604	***	***	10,200	***	12,300	43,104
1970-----	19,012	***	***	10,400	***	11,024	45,836

As indicated in the tabulation above, total U.S. consumption ^{1/} of hi-fi equipment increased throughout the period 1965-69 and in January-June 1970. Total consumption was almost three times larger in 1969

^{1/} Total U.S. consumption is based on data on shipments and imports obtained in response to the Commission's questionnaire. For recent periods, the totals shown are estimated to equal about 85 percent of the actual totals.

than in 1965, and just slightly larger in January-June of 1970 than in the same period of 1969. The principal gains in consumption from 1965 to 1969 were in stereo receivers (\$19 million, a rise of 142 percent) and in compact modules (\$17 million, an increase of 435 percent). The growth in consumption of stereo receivers (\$4.4 million, or 30 percent) in January-June 1970, compared with the similar period in the prior year, offset a decline in most of the other categories of equipment.

In the earlier part of the period under consideration in this investigation, the market for hi-fi equipment was comparatively small, and sales were mostly to hobbyists and audiophiles. Over the past several years, however, the market for such equipment has broadened considerably as a response to several main factors. Probably the most important factor was the introduction of solid-state devices (e.g., transistors), to replace vacuum tubes, in hi-fi equipment. This, combined with advancements in the design and manufacture of circuitry, and in speaker systems, provided consumers with hi-fi components that were highly effective in reproducing sound, and were also more reliable and durable than earlier models. At the same time, the advances in electronics mentioned above, along with miniaturization, made it possible to considerably reduce the size of individual components (tuner and amplifier) and to combine those components into a single receiver, suitable for use in the average home. The market was also spurred by reductions in prices, by greatly increased sales promotion as well as by increases in personal disposable income during the period under consideration.

U.S. producers and shipments

In the early 1960's, 3 domestic producers--Fisher Radio Corp., H. H. Scott, Inc., and Sherwood Electronics Laboratory--accounted for the great bulk of the domestic production of hi-fi equipment. By the mid-1960's other domestic manufacturers began operations, and by 1969-70 the industry had expanded to 11 domestic producers. It is estimated that nine producers have accounted for about 80 percent of the domestic production of hi-fi equipment in recent years.

All of the producers are relatively small * * * A number of the domestic producers--at least four of them--were merged with larger companies. Such mergers were an outgrowth of the "conglomerate" movement of recent years, because the growth prospects of hi-fi firms at that time were considered favorable. The hi-fi firms produce what is essentially a luxury product, and are, therefore, vulnerable to retrenchments in the economy. A small hi-fi producer with a large parent company can weather an economic slowdown (such as occurred in 1969-70) better than a small independent producer can. The merged firm can obtain needed capital from the parent company when money from outside sources is not available (as has been the case in the tight money situation during 1969-70). Moreover, the merged firm can draw upon the marketing and management skills and resources of the parent company. H. H. Scott, Inc. * * * remains as the largest independent firm in the hi-fi industry. * * *

Total U.S. shipments (excluding exports) ^{1/} of hi-fi equipment by the nine domestic producers mentioned above during 1965-69 and in January-June of 1969 and 1970 are presented in the following tabulation, by type, in thousands of dollars:

Period	Stereo re- ceivers	Stereo tuners	Stereo ampli- fiers	Stereo com- pact modules	Stereo con- soles	Speaker systems	Total
1965-----	13,000	***	***	3,900	***	11,000	35,000
1966-----	23,000	***	***	7,900	***	15,000	54,200
1967-----	25,000	***	***	11,000	***	17,000	63,900
1968-----	26,000	***	***	19,000	***	23,000	79,100
1969-----	23,000	***	***	18,000	***	24,000	76,400
Jan.-June:							
1969-----	11,000	***	***	9,100	***	11,000	36,100
1970-----	11,000	***	***	8,700	***	9,300	32,500

As shown above, total shipments of hi-fi equipment peaked at \$79 million in 1968. Annual shipments increased 55 percent in 1966, 18 percent in 1967, and 24 percent in 1968. Total shipments declined, however, by 3 percent in 1969 (compared with 1968) and 10 percent in January-June 1970 (compared with the same months in 1969). In 1965, 1969, and January-June 1970, domestic producers' shipments of stereo receivers and speaker systems together accounted for about two-thirds of total shipments. Shipments of compact modules made up about one-tenth of the total shipments in 1965 and one-fourth in 1969 and January-June 1970. In general, by categories, the shipments increased from 1965 to 1968, but decreased in 1969 and in January-June 1970.

^{1/} Total U.S. shipments are based on data obtained in response to the Commission's questionnaire. For recent periods, the totals given are believed to equal about 80 percent of the actual totals.

U.S. imports

The U.S. imports ^{1/} of hi-fi equipment from Japan during 1965-69 and January-June in 1969 and 1970 are given in the following tabulation, by type, in terms of dealers' cost, in thousands of dollars:

Period	Stereo receivers	Stereo tuners	Stereo amplifiers	Stereo compact modules	Stereo consoles	Speaker systems	Total
1965-----	651	133	169	-	-	624	1,577
1966-----	1,465	111	479	96	-	899	3,050
1967-----	3,400	243	292	539	-	1,400	5,874
1968-----	6,414	500	500	1,769	-	2,900	12,083
1969-----	10,037	900	1,600	2,900	-	4,123	19,560
Jan.-June:							
1969-----	3,604	400	600	1,100	-	1,300	7,004
1970-----	8,012	1,100	800	1,700	-	1,724	13,336

These imports from Japan are estimated to account for more than 90 percent of total U.S. imports of hi-fi equipment. Virtually all remaining imports are believed to have originated in Japan.

The foregoing tabulation shows that total U.S. imports of hi-fi equipment increased substantially from about \$1.6 million in 1965 to about \$19.6 million in 1969. In January-June 1970, imports were \$13.3 million, compared with \$7.0 million in January-June 1969. In each period, stereo receivers made up the largest share of the total imports of hi-fi equipment (e.g., 41 percent in 1965 and 60 percent in January-June 1970). Hi-fi stereo consoles were not imported during those periods. In all other categories, the imports increased sharply.

^{1/} Total U.S. imports in this report are based on data obtained in response to the Commission's questionnaire. For recent periods, the total imports presented are estimated to equal about 90 percent of the actual totals.

The ratio of total imports to total consumption of the articles under consideration rose from 4 percent in 1965 to 20 percent in 1969 and to 29 percent in January-June 1970 (table 1). In the same period the ratio of imports to consumption grew for each type of imported hi-fi equipment, especially for receivers and tuners.

Included in the total U.S. imports of hi-fi equipment beginning in 1968 were relatively small imports by two U.S. producers of hi-fi equipment. * * * Stereo receivers accounted for all, or almost all, of the imports by the domestic producers. Since June 1970, however, nearly all other domestic producers * * * have begun importing hi-fi equipment. Most such imports consisted of lower-priced articles intended either as replacements for the producers' lower-priced models or as additions to their product line.

The entry of imports from Japan into the U.S. market for hi-fi equipment began in the mid-1960's. The main reason for that entry and for the rapid expansion in the next few years was the early advantage enjoyed by the Japanese producers as a result of transferring their solid-state technology in other consumer electronic products (e.g., transistor radios) to hi-fi equipment. Another reason may have been more generous credit terms and allowances afforded by importers than by domestic producers, as mentioned elsewhere in this report. In more recent years, the rise in imports would appear to be explained by the comparatively lower market prices of imports than for domestic equipment. Moreover, as a result of effective quality control, the Japanese electronic hi-fi components have gained a reputation for high quality.

In this connection, a domestic producer stated that the high quality of the Japanese products results from rigorous testing and retesting, and that such testing would be too costly for most domestic producers.

Prices

Fragmentary data on the prices of domestic and imported hi-fi equipment were obtained by questionnaire from domestic producers and importers. A comparison of such prices is extremely difficult principally because of considerable variations in the performance and characteristics of the equipment to be compared. Based on interviews with officials in the trade, however, it is apparent that most of the competition between domestic and imported equipment has been in the electronic components (including those components incorporated in compacts and consoles) rather than in speaker systems. There has been almost no competition in hi-fi stereo consoles.

The largest volume of electronic components sold by H.H. Scott and the rest of the domestic producers was accounted for by stereo receivers. * * * domestic producers of such receivers have offered a number of models for sale generally covering the price range of \$140 to \$350 to dealers. (Dealers, in turn, have retailed these receivers in the range from \$200 to \$500.)

The consensus of trade officials is that the largest volume of receivers sold in the past few years have been in the middle price range (\$180 to \$250 price to dealers). When import competition first began, however, imported receivers were generally marketed at the

lower end of the price range, but by 1967 most of the major importers were offering receivers in models covering almost all of the price range. In recent months, * * * a number of * * * producers have discontinued production of the lower-priced receivers and have filled in that end of their product line with imported receivers produced under their private labels. Those producers contend that they have taken this course because their costs were too high to compete in the low end of the price range.

* * * * *

Several domestic producers have contended that the credit terms and advertising allowances offered to dealers by importers have been much more generous than those offered by domestic producers. This may have been true in the earlier years under consideration; such credit practices probably were used by certain importers to achieve rapid initial penetration of the U.S. market. Information * * * indicates, however, that the credit terms currently extended by both the domestic producers and most importers are comparable; generally, the terms are 1 percent to 2 percent cash discount for payment within 10 to 20 days and the net price is payable in 30 days.

Data obtained from domestic producers and importers show that the prices charged to dealers (dealers' cost) by importers were generally from about 20 to 25 percent below those charged by domestic producers for comparable products. Because of this cost advantage, dealers are encouraged to "push" imported products, and to maintain sales volume, they generally pass on some of their cost advantage to the ultimate consumer in the form of lower retail prices.

H. H. Scott, Inc.

Corporate history.--* * * The company was incorporated in Massachusetts in 1947 and original plans were to manufacture mainly professional laboratory instruments and broadcast station equipment based on patents already held by Hermon Scott. ^{1/} Among one of the company's first products was a high-priced dynamic noise suppressor for reducing phonograph noise without losing the audible music. Originally produced for sale to broadcast stations, the product was purchased by a number of audiophiles for home use. This led to the introduction of a noise suppressor amplifier, believed to be the first complete high-fidelity amplifier by modern standards. Subsequent development of vinylite records eliminated the need for the suppressor, but by the end of the 1950's the demand for high-fidelity products had increased substantially, and the company began producing a complete hi-fi line, i.e., receivers, tuners, amplifiers, and speaker systems.

* * * * *

^{1/} Hermon Scott, acknowledged as a pioneer in the field of hi-fi equipment, is the owner of some 100 patents pertaining to electronic devices. * * *

STATISTICAL APPENDIX

Table 1.--Hi-fi stereo and related equipment: U.S. shipments (excluding exports), imports for consumption, apparent consumption, and ratio of imports to consumption, 1965-69 and January-June in 1969 and 1970

Year	Shipments <u>1/</u>	Imports <u>2/</u>	Apparent consumption	Ratio of imports to consumption
	<u>1,000</u> <u>dollars</u>	<u>1,000</u> <u>dollars</u>	<u>1,000</u> <u>dollars</u>	<u>Percent</u>
1965-----	35,000	1,577	36,577	4
1966-----	54,200	3,050	57,250	5
1967-----	63,900	5,874	69,774	8
1968-----	79,100	12,083	91,183	13
1969-----	76,400	19,560	95,960	20
Jan. -June:				
1969-----	36,100	7,004	43,104	16
1970-----	32,500	13,336	45,836	29

1/ Data are based mainly on statistics obtained from eight domestic producers who responded to the Commission's questionnaire, and to a smaller extent on estimates for one other domestic producer who had not yet responded to the questionnaire.

2/ Data are based on statistics received from eight importers in response to the Commission's questionnaire and, in small part, on estimates for one importer.

Source: Compiled from data supplied by domestic producers and importers, except as noted.

Note.--For recent periods, the data presented in this table are believed to account for about 80 percent of the actual total shipments (excluding exports), 90 percent of the actual total imports and 85 percent of the actual total consumption.

