

# **LIQUID CRYSTAL DISPLAY TELEVISION RECEIVERS FROM JAPAN**

**Determination of the Commission  
in Investigation No. 751-TA-14  
Under the Tariff Act of 1930,  
Together With the Information  
Obtained in the Investigation**



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# **UNITED STATES INTERNATIONAL TRADE COMMISSION**

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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report.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

UNITED STATES INTERNATIONAL TRADE COMMISSION  
Washington, DC

Investigation No. 751-TA-14

LIQUID CRYSTAL DISPLAY TELEVISION RECEIVERS FROM JAPAN

Determination

On the basis of the record 1/ developed in the subject investigation, the Commission determines, 2/ pursuant to section 751(b) of the Tariff Act of 1930 (19 U.S.C. § 1675(b)), not to modify or revoke the antidumping order with regard to liquid crystal display television receivers (LCD TV's) from Japan.

Background

On April 28, 1987, the Commission received a request from counsel on behalf of Casio Computer Co., Ltd.; Casio, Inc.; Citizen Watch Co., Ltd.; Hitachi, Ltd.; Hitachi Sales Corp. of America; Hitachi Sales Corp. of Hawaii, Inc.; Matsushita Electrical Industrial Co., Ltd.; Matsushita Electric Corp. of America; NEC Corp.; NEC Home Electronics (U.S.A.), Inc.; Seiko Epson Corp.; Sharp Corp.; Sharp Electronics Corp.; Toshiba Corp.; and Toshiba America, Inc., to modify T.D. 71-76 to exclude LCD TV's from the scope thereof. After consideration of the request for review and of responses to a Federal Register notice inviting comments (52 F.R. 21630), the Commission instituted investigation No. 751-TA-14 effective August 20, 1987, for the purpose of reviewing the Commission's affirmative determination in Television Receiving Sets from Japan, investigation No. AA1921-66 (T.C. Pub. No. 367 (1971)). Notice of the investigation and the Commission's hearing was published in the Federal Register of August 20, 1987 (52 F.R. 31454). A hearing was held in the Commission's hearing room on November 12, 1987, at which time all interested parties were afforded the opportunity to present information for consideration by the Commission.

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

2/ Chairman Liebeler and Vice Chairman Brunnsdale determine that an industry in the United States would not be materially injured or threatened with material injury, and the establishment of an industry in the United States would not be materially retarded, by reason of imports of LCD TV's from Japan if the antidumping order regarding such merchandise were to be modified.



VIEWS OF COMMISSIONER ECKES, COMMISSIONER LODWICK,  
AND COMMISSIONER ROHR

We determine that it is not appropriate to modify or revoke the existing antidumping order covering television receivers from Japan to exclude liquid crystal display televisions (LCD TV's). We determine, based upon the record in this investigation, that other types of televisions are sufficiently similar to LCD TV's that the appropriate like product is all television receivers and the relevant domestic industry consists of all domestic producers of television receivers. While the Commission determined that the request for modification contained sufficient allegations of changed circumstances for the purposes of instituting this investigation, the record developed in this investigation does not persuade us that LCD TV's are sufficiently different from other television receivers to warrant their exclusion from the outstanding antidumping order.

1. Purpose of the review investigation.

The purpose of section 751 is to provide an opportunity for the review of outstanding antidumping and countervailing duty orders. However, section 751 contains no explicit standards for determining when revocation or modification is appropriate. Commission Rule 207.45 states that, in a section 751 review, the Commission shall determine whether, in light of changed circumstances, "an industry in the United States would be materially injured, or would be threatened with material injury or the establishment of an industry in the

United States would be materially retarded by reason of the merchandise covered by the countervailing duty order or the antidumping order were it to be modified or revoked. This standard has been approved by the Federal Circuit in American Permac v United States, 831 F.2d 269 (1987).

In Matsushita Electric Industrial Co. v. United States, 750 F.2d 927 (Fed. Cir. 1984), a review of our prior section 751 determination regarding television receivers, the Court noted that "a decision to undertake review is a threshold decision which merely sets the review proceeding in motion and has no bearing on the merits. The evidence submitted in support thereof may or may not be persuasive on the issue of revocation." 750 F.2d at 932. Thus, the institution of an investigation does not affect the petitioner's burden of persuading the Commission that the alleged changed circumstances in fact exist.

Following Matsushita, Congress addressed Commission practice in review investigations. The 1984 amendments to section 751 clearly demonstrate Congress' approval of the Federal Circuit's decision in Matsushita and the Commission's conduct of 751 reviews. The 1984 amendments added the following sentence to section 751:

During an investigation by the Commission, the party seeking revocation of an antidumping or countervailing duty order shall have the burden of persuasion with respect to whether there are changed circumstances sufficient to warrant revocation of the antidumping or countervailing duty order.

19 U.S.C. § 1675(b). The conference report accompanying this provision states that "the purpose of section 751 review is to determine whether there are changed circumstances sufficient to warrant revocation of an antidumping order." <sup>1/</sup> Further, the report notes that "a 751 review does not begin from

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<sup>1/</sup> H.R. Conf. Rep. No. 1156, 98th Cong., 2d Sess. 182-82 (1984).

an entirely neutral starting point. The party seeking revocation of the order has a burden of persuasion, in the sense that at the end of the ITC investigation, the ITC must be convinced that revocation of the order is appropriate." <sup>2/</sup>

## 2. Background

The antidumping order subject to this review investigation was entered as a result of an 1971 investigation covering all television receivers from Japan. <sup>3/</sup> That order was also the subject of a previous review investigation in 1981. <sup>4/</sup> In that previous review, the Commission determined that the antidumping order should not be revoked in whole or in part. The determination was based upon a finding that revocation of the entire order would pose a threat of material injury to the domestic industry producing all television receivers. Further, the Commission declined to modify the order as to small screen television receivers because the parties seeking modification did not persuade the Commission that small screen television receivers were so dissimilar that they constituted separate like products. <sup>5/</sup> Because the technology for manufacturing LCD TV's had not yet been commercially exploited, the Commission did not consider whether LCD

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<sup>2/</sup> Id. at 182.

<sup>3/</sup> Television Receiving Sets from Japan, Inv. No. AA1921-66, TC Pub.367 (1971).

<sup>4/</sup> Television Receiving Sets from Japan, Inv. No. 751-TA-2, USITC Pub. 1153 (1981).

<sup>5/</sup> Id. at 19-20.

televisions were like all other television receivers in either the original investigation or the first review investigation.

In our prior review of the antidumping order covering television receivers from Japan, we commented on those circumstances under which modification might be appropriate regarding the outstanding order covering television receivers:

One possible rationale for modifying the order could be a determination that through technological development a particular imported product no longer has a competing counterpart in the domestic market. In this case, it could make sense to drop that product from the finding, assuming complete revocation was not justified, upon a showing that there was indeed no competition between the import and any segment of the domestic industry protected from material injury by the order.

Television Receivers from Japan, Inv. No. 751-TA-2, USITC Pub. 1153 at 19 (1981). The majority of the Commission instituted the current review investigation to determine whether development of LCD TV's was such an instance. <sup>6/</sup> We conclude that it is not. <sup>7/</sup>

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<sup>6/</sup> Commissioner Eckes and Commissioner Rohr dissenting.

<sup>7/</sup> In our prior review of the order covering television receivers, we determined that the order should not be modified to exclude certain mini-televvisions because the parties seeking modification had failed to persuade us that small screen televisions do not compete with all other televisions. Television Receiving Sets from Japan, Inv. No. 751-TA-2, USITC Pub. 1153 (1981). Their arguments failed because (1) the domestic industry did produce small screen televisions, (2) the Commission did not believe that screen size alone was an appropriate basis for making like product distinctions, and (3) the evidence of consumer differentiation was unpersuasive. We noted that the importers failed to provide direct evidence  
(Footnote continued on next page)

3. Changed circumstances sufficient to warrant modification do not exist

This section 751 review presents to the Commission the issue of when it is appropriate to modify or revoke in part an antidumping order for the purpose of excluding a portion of the imports covered by that order. Previously, the Commission allowed modification of an antidumping order when it was persuaded that a particular product, although clearly within the scope of an outstanding antidumping or countervailing duty order, did not compete with its corresponding domestic like product.<sup>8/</sup> The Commission also modified an order when it believed that a particular category of imports constituted a separate like product such that there were separate industries and revocation would not materially retard the establishment of an industry producing the product for which modification was sought.<sup>9/</sup> However, in the prior review of the order covering televisions from Japan, the Commission determined not to modify in the absence of a showing of no competition and separate like products. Thus in review cases to this date, modification or partial revocation has only been afforded when the Commission was persuaded that there

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(Footnote continued from previous page)  
of the lack of competition between large screen and small screen televisions. No market surveys or cross-elasticity studies were supplied.

8/ Synthetic L-Methionine from Japan, Inv. No. 751-TA-4, USITC Pub. 1167 (1981). Commissioner Rohr notes that, while he does not question the result reached in that case, the like product analysis contained therein is highly suspect.

9/ Salmon Gill Fish Netting from Japan, Inv. No. 751-TA-5, USITC Pub. 1234 (1982); Inv. No. 751-TA-7, USITC Pub. 1387 (1983); Inv. No. 751-TA-11, USITC Pub. 1921 (1986).

was no domestic like product and no competition between the subject product and any domestic product.

The foreign producers and domestic importers of LCD TV's from Japan alleged that LCD TV's were different than conventional CRT TVs and did not compete with conventional cathode ray tube televisions (CRT TV's). These alleged differences, they maintained, constituted changed circumstances sufficient to warrant modification of the antidumping order to exclude LCD TV's. The alleged differences include:

- (1) LCD TV's are far smaller and lighter than CRT TV's, and use self contained power sources;
- (2) LCD TV's are produced using completely different technology from that applicable to CRT TV's;
- (3) Unlike CRT TV's, which are designed for in-home viewing, LCD TV's are truly portable and are used primarily outside the home; and
- (4) LCD TV's are marketed differently than CRT TV's, through different retail outlets from CRT TV's, and are priced in a manner that is not competitive with CRT TV's.

Opponents of the proposed modification argued that LCD TV's are not fundamentally different from CRT TV's or any other kind of television receiver. They noted that all receivers are equipped to receive a broadcast television signal and to produce a video image. Because these principal characteristics and uses are the same, opponents of modification contend that LCD TV's do not constitute a separate like product. More particularly, the parties in opposition point out that the Commission in prior television receiver investigations has not found different like products based upon differences in the features of individual component parts such as screen size, the type of speakers, or the type of volume control or channel control involved. Instead, the Commission's like product analysis has considered the

product as a whole and determined that if the product as a unit can receive a television broadcast signal and display an image, then it is a television receiver and not a separate like product.

Regarding the use of LCD TV's, the opponents to modification referred to prior Commission determinations that also defined use broadly. According to them all television receivers (LCD, CRT, or projection TV's) are used for the same general purpose: receiving a television broadcast signal and reproducing it in audio and visual form.

Regarding the alleged technological differences, those opposing modification point out that the Commission has determined in previous investigations regarding television receivers that different technology or production processes do not necessarily establish different like products. Indeed, they argue that the only technological or production related differences are in the production of the screen, not the receiver as a whole. Moreover they noted that, while direct competition between LCD TV's and CRT TV's was currently in the smaller screen sizes, the Commission should not confine its analysis to the static picture but must consider the dynamics of the market and the allegedly inevitable and imminent development of large screen LCD TV's that would compete directly with large screen CRT TV's. <sup>10/</sup>

This investigation has many important elements in common with our previous review investigation of television receivers, as well as the original investigations regarding television receivers. In those previous

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<sup>10/</sup> See Report of the Commission (Report) at A-7 and n. 1.

investigations, we have consistently determined that certain differences in physical characteristics were not sufficient to support like product distinctions. These physical differences, including screen size, tuning mechanisms, and cabinetry, did not lead to differences in uses. Differences in screen size, in particular, was determined not to be an appropriate basis for a like product distinction. <sup>11/</sup>

In contrast, the Commission excluded certain television monitors from the scope of its like product determination primarily because of the different functions of monitors and receivers. <sup>12/</sup> Monitors did not contain the same components as receivers; they lacked both a tuner and any form of speaker. Monitors, instead, were more like a picture tube than a receiver. This distinction is relevant to the current investigation because LCD TVs do contain a tuner and an audio device. The principal difference is the screen. More particularly, the difference is the technology used in making and operating the screen and not screen size, since the request for modification contains no limitation as to screen size.

All televisions have the same basic characteristics. They have a screen, a tuner, an audio device, and electronic circuitry necessary to receive a

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<sup>11/</sup> Television Receivers from Japan, Inv. No. 751-TA-2, USITC Pub. 1153 at 19 and 20 (1981); Television Receivers from the Republic of Korea and Taiwan, Invs. Nos. 731-TA-134 and 135 (Final), USITC Pub. 1514 at 5 (1984).

<sup>12/</sup> Television Receivers from the Republic of Korea and Taiwan, Invs. Nos. 731-TA-134 and 135 (Final), USITC Pub. 1514 (1984).

signal. <sup>13/</sup> Further, they all have the same basic use; they are used to "watch entertainment programming and as display units for video games, video tape recorders, or computers." <sup>14/</sup>

The alleged difference in use between LCD TV's and all other TV's is not clear and distinct. The parties seeking modification alleged the existence of separate and distinct markets for LCD TV's and CRT TV's. CRT TV's are allegedly limited to in-home use while LCD TV's are used outside of the home. Upon closer examination we are not persuaded that "separate and distinct markets exist" for LCD TV's and CRT TV's. Although the degree of competition between LCD TV's and CRT TV's necessarily decreases as the difference in screen size increases, this does not mean that there is a clear dividing line separating the two. Instead, we believe that there are important overlapping areas of competition.

For example, the Japanese consumer survey submitted by the parties seeking modification indicated that a significant portion of the respondents identified uses for LCD TV's which would be equally applicable to small portable CRT TV's or even full size CRT TV's. These included viewing in the bedroom, classroom, office, study or den, kitchen, hospital room, and even the

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<sup>13/</sup> Report at A-5, A-8 and A-9.

<sup>14/</sup> Television Receivers from the Republic of Korea and Taiwan, Invs. Nos. 731-TA-134 and 135 (Final), USITC Pub. 1514 (1984).

family room. <sup>15/</sup> Moreover portable CRT TV's could also be used for such uses supposedly reserved to LCD TVs as viewing at a pool, while camping or outdoors, at a sporting event, while fishing, or in the yard. While the relatively more compact nature of LCD TV's may result in a competitive advantage in some of these market segments vis-a-vis a 13 inch portable CRT TV, the differences between the two do not preclude competition and do not warrant treatment as separate like products or modification of the antidumping order to exclude LCD TV's. <sup>16/</sup> The parties seeking modification failed to submit persuasive evidence that LCD TV's do not compete with all other television receivers. <sup>17/ 18/</sup>

We acknowledge that LCD TV's are a new type of television and the question of whether they should be included in the same like product category

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<sup>15/</sup> See Prehearing Brief of Weil, Gotshal, & Manges at Appendix B, Exhibit 3. The survey submitted by those seeking modification of the order merely demonstrates that most Japanese purchasers do not use LCD TV's as their primary television. It does not indicate how U.S. consumers use LCD TV's or how they use other types of televisions.

<sup>16/</sup> This conclusion finds further support in the evidence indicating that the channels of distribution for LCD TV's and other types of television receivers overlap considerably. Report at A-20-A-23.

<sup>17/</sup> The decision in Synthetic L-Methionine from Japan, Inv. No. 751-TA-4, USITC Pub. 1167 (1981) reached a different result because there was no domestic production of synthetic L-Methionine and the domestic like product (DL-Methionine and MHA) was put to a completely different noncompetitive use than the imported product. Synthetic L-Methionine was used exclusively as a nutritional supplement for humans while DL-Methionine and MHA were used exclusively in the animal feed markets.

<sup>18/</sup> See Additional Views of Commissioner Rohr regarding the relevance of competition between LCD TV's and other TV's in the absence of a finding that they constitute separate like products.

as television receivers generally has not been previously addressed. For this reason, a majority of the Commission determined to institute this investigation to allow the exporters and importers of LCD TV's the opportunity to persuade the Commission that exclusion of LCD TV's from the antidumping order would be appropriate. Based upon the record in this investigation and our treatment of the like product question in previous television receiver investigations, we are not persuaded that LCD TV's constitute a separate like product. In short, the changed circumstances alleged in the request for modification, i.e., that there was a new and fundamentally different product, do not, upon further investigation, exist.



## ADDITIONAL VIEWS OF COMMISSIONER DAVID B. ROHR

While I concur generally with the views of my colleagues, Commissioners Eckes and Lodwick, there are two additional points which I believe must be made in connection with this investigation. The first relates to the like product determination that we have made in this investigation. The second relates to the conduct of section 751 reviews generally.

With respect to the definition of the like product, I concur completely with my colleagues that the appropriate like product definition to be used in this investigation is all television receivers. I recognize, however, that the question of like product is a very close one. My decision is based on the specific facts of this investigation.

Technological change is an important aspect of the modern commercial world and one to which the Commission must be sensitive. Even with articles of commerce that may look much alike and perform much the same function, there comes a time when the technological differences between them become so great as to preclude a reasonable man from considering them to be the same product. This was a critical issue in this investigation.

In the present case, I voted initially not to institute this investigation. I did not believe those parties advocating review had presented a sufficient case that those technological and other changes, which they outlined in their petition for review, reached the level to require a reconsideration of the order. As the information was developed through the course of the investigation I believe that this view has been confirmed.

The discussion of like products also relates to the second point that I find must be made in connection with this investigation. This issue relates to the appropriateness of Commission actions to modify outstanding countervailing

duty and antidumping orders to exclude particular products. There is no question that the Commission possess such authority, but there is some ambiguity in past decisions as to the conditions under which it can be exercised. This is not an issue which has arisen frequently before the Commission, and it has not, it appears, been directly addressed. Several prior opinions, however, do relate to the issue.

In the present case, advocates of revocation seek to exclude a particular type of television, liquid crystal display televisions, from the scope of an order which currently applies to all televisions. In this context, the question is whether the Commission must determine that LCD televisions constitute a separate like product in order to consider this request. Alternatively, could the Commission determine, even if there is no separate LCD television "like product" that LCD televisions do not compete with or do not injure the domestic television receiver industry. Having considered this question very carefully, I have concluded that a finding of separate like products would be necessary.

The most recent Commission decisions that touch upon this issue are the series of decisions relating to Salmon Gill Fish Netting, Inv Nos. 751-TA-5, 7, 11, USITC Pubs 1234 (1982), 1387 (1983), and 1921 (1984). These reviews were based upon an original antidumping order which applied to all fish netting. In the most recent of those decisions, the Commission determined that salmon gill fish netting was a separate product from other types of netting, and upon analyzing whether imports materially retarded the establishment of a domestic industry, determined to revoke the order as to that particular product. In that case, the Commission clearly found salmon gill fish netting to be a separate like product before conducting its injury analysis.

In an earlier case, the Commission's action is much less clear. In Synthetic L-Methionine, Inv. No. 751-TA-4, USITC Pub. 1167 (1981), the Commission, in substance, appears to have looked at synthetic L-methionine as a distinct like product, but went on to conclude that because it was not produced domestically and did not compete with those forms of methionine that were produced domestically it should be excluded from the order. This analysis confuses the issue. To the extent it suggests that a finding of separate like product is not necessary to exclude a product from the scope of an outstanding order, I believe it to be wrong.

I believe that analysis to be wrong because it conflicts with the basic framework of the countervailing duty and antidumping laws. It assumes that the Commission has an authority which it is nowhere explicitly granted and which, in fact, is specifically committed to the Department of Commerce.

Under title VII generally, it is clear that the Commission does not have the authority to alter the scope of an investigation. In other words, it cannot separately determine what the articles subject to investigation are to be. That decision, which ultimately is reflected in the scope of any order issued in an investigation, is the responsibility of Commerce. The only authority that the Commission does possess is to divide up the articles subject to investigation to correspond to specific domestic like products, the definition of which is statutorily committed to it.

As was noted in my joint views with my colleagues, in section 751 reviews, the Commission does not operate on a clean slate. The background of its decision is a prior order, which, in turn, was based on an investigation having a defined scope. What authority does the Commission have to change the scope of the investigation from that of the original underlying

investigation. The only possible authority for doing so would be authority which also exists in the underlying investigation, and the only authority which exists in the underlying investigation is the Commission's authority to determine the like product.

The Commission does not have the authority in a section 701 or a section 731 case to exclude a particular exporter's product from the investigation because it enters only in a particular region or is marketed in a particular way. Competition, or lack thereof, between the domestic product and the imports must be determined on the basis of all of the imports under investigation.

As the only authority the Commission possesses to affect the articles subject to investigation related to its definition of the like product, I believe it follows logically, that where, in the context of a section 751 review, the proponent of a modification seeks to modify or revoke an order to exclude a particular part of the articles that were constructively part of the original investigation, the only basis for the Commission to so act is on the basis of its authority to determine the like product. Where, as here, the Commission determines that the particular articles do not constitute a separate like product, the inquiry and the investigation ends. To the extent any prior decision suggests otherwise, I respectfully believe it to be in error.

DISSENTING VIEWS OF CHAIRMAN SUSAN LIEBELER  
AND VICE CHAIRMAN ANNE E. BRUNSDALE

Liquid Crystal Display Television Receivers from Japan  
Investigation 751-TA-14

December 16, 1987

In this investigation, we recommend modification of the existing order to allow the importation of liquid crystal display (LCD) television receivers from Japan without payment of dumping duties. Although there are two industries in the United States that could be adversely affected by the resumed importation of dumped Japanese imports, we determine that no U.S. industry would suffer from material injury or threat of material injury, or be materially retarded from establishing a domestic LCD television industry, by reason of such imports. Thus, imports of Japanese LCD televisions would not cause or threaten the domestic cathode ray tube (CRT) television industry with material injury. Nor would such imports materially retard the establishment of a domestic LCD television industry by the U.S. industry that currently uses LCD technology to manufacture products other than televisions.

Structure of a 751 Review

Japanese manufacturers of LCD televisions petitioned the

Commission under Section 751 of the Trade Agreements Act of 1979.<sup>1</sup> This section authorizes the Commission to review its final determinations of material injury to a domestic industry in antidumping and countervailing duty cases.<sup>2</sup> Under its rules, the Commission, in a Section 751 review, can revoke or modify (i.e., relax) an existing order only if a U.S. industry would not be materially injured or threatened with material injury, or the establishment of a U.S. industry would not be materially retarded, by such action.<sup>3</sup> The Court of Appeals for the Federal Circuit in American Permac Inc. v. U.S. recently discussed and affirmed the Commission's use of this standard for

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1. Petition to Exclude Liquid Crystal Display Televisions from the Scope of the Antidumping Finding Respecting Monochrome and Color Television Receiving Sets from Japan (May 11, 1987). The petitioners in this investigation are Casio, Citizen Watch Co., Hitachi, Matsushita, NEC Home Electronics, Seiko Epson Corp., Sharp and Toshiba. See Trade Agreements Act of 1979, Pub. L. No. 96-39, Title I, Sec. 101, 93 Stat. 175-176 (1979). This section was amended by the Trade and Tariff Act of 1984, Pub. L. No. 98-573, Title VI, Sec. 611, 98 Stat. 3031-3032 (1984).

2. See 19 U.S.C. 1675(b). The statute states that "whenever the Commission receives a request for the review of an affirmative determination under section 1671d(b), which shows changed circumstances sufficient to warrant a review of such determination, it shall conduct such a review. During an investigation by the Commission, the party seeking revocation of an antidumping order shall have the burden of persuasion with respect to whether there are changed circumstances sufficient to warrant revocation of the antidumping order." Id.

3. 19 C.F.R. 207.45(a).

the review of petitions filed under this section.<sup>4</sup>

The Permac court affirmed the use of a two-part test for determining material injury.<sup>5</sup> First, the Commission forecasts the likely behavior of foreign manufacturers and importers, based on current trends in production and the discernible intentions of these parties regarding future imports.<sup>6</sup> In doing so, the Commission must assume that the imports are being dumped by the importer.<sup>7</sup> Second, the Commission determines whether these imports will cause or threaten to cause material injury to the domestic industry.<sup>8</sup> The test for determining material injury, found in Section 771(7), lists a number of factors with which to evaluate the effect of these imports on the domestic industry.<sup>9</sup>

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<sup>4</sup> No. 87-1159, slip op. (Fed. Cir. Oct. 15, 1987). The court reaffirmed the earlier Matsushita decision that also approved the use of this standard in Section 751 reviews. See Permac, slip op. at 9; Matsushita Electric Industrial Co., Ltd. v. United States, 750 F.2d 927, 932 (Fed. Cir. 1984).

<sup>5</sup> Permac, slip op. at 10.

<sup>6</sup> Id.

<sup>7</sup> See Matsushita Electric Industrial Co., Ltd. v. United States, 569 F. Supp. 853, 856 (Ct. Int'l Trade 1983), rev'd on other grounds, 750 F.2d 927 (Fed. Cir. 1984).

<sup>8</sup> Permac, slip op. at 10.

<sup>9</sup> Id. These factors include actual and potential declines in  
(Footnote continued on next page)

Likely Behavior of Japanese Importers

As indicated above, the first step in analyzing the two affected domestic industries in this case is to predict the behavior of the importers of the like product. This prediction involves analyzing current production of the Japanese producers, as well as any information the Commission is able to gather on their future plans.

There are currently eight Japanese companies producing or planning to produce LCD televisions.<sup>10</sup> Of these eight, five<sup>11</sup> also manufacture CRT televisions.<sup>11</sup> The other three are<sup>12</sup> computer and watch manufacturers.

The capacity of the eight firms to produce LCD televisions

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(Footnote continued from previous page)  
output, sales, market share, profits, productivity, return on investments, and capacity utilization; factors affecting domestic prices; and actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment. See 19 U.S.C. 1677(7)(C)(iii)(I)-(III).

<sup>10</sup> Report at A-23 and A-24.

<sup>11</sup> The five are Hitachi, Sharp, Matsushita, Toshiba, and NEC  
Id.

<sup>12</sup> Id. The three are Casio Computer Co., Citizen Watch Co., and Seiko Epson Corp. Id. These companies were the first to explore this technology and put it in television sets.

shot up by 658 percent between 1984 and 1985,<sup>13</sup> and increased  
 by \*\*\* percent between 1985 and 1986.<sup>14</sup> Production of LCD  
 televisions increased by 764 percent between 1984 and 1985, and  
 by \*\*\* percent between 1985 and 1986.<sup>15</sup> Thereafter, both  
 capacity and production faltered, actually decreasing by \*\*\*  
 percent and \*\*\* percent respectively in 1987, and the increases  
 projected for 1988 are modest when compared with the earlier  
 growth.<sup>16</sup>

As for LCD television imports from Japan, the data reveal  
 that, measured by value, such imports increased from \$\*\*\*\*\*  
 to \$52 million between 1984 and 1986, but then fell to \$\*\*\*\*\*  
 in the first half of 1987.<sup>17</sup> Measured by volume, the Japanese  
 imports to the United States increased from 32,000 units to  
 771,000 units between 1984 and 1986, but dropped to \*\*\*\*\*

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13  
Id. at A-25.

14  
Id.

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Id.

16  
Id. Production is estimated to increase by \*\*\* percent in  
 1988 and capacity is estimated to increase by only \*\*\* percent  
 in 1988. Id.

17  
Id. at A-52.

units in 1987.<sup>18</sup> The data also reveal that the Japanese producers are now focusing their efforts on increasing home market sales and expanding sales to export markets other than the United States.<sup>19</sup> Japanese sales in the home market in 1987 should again be greater than their sales in the United States, as had been the case prior to 1985.<sup>20</sup> In addition, the Japanese companies also expect that in 1988 they will, for the first time, sell more LCD televisions in other export markets than in the United States market.<sup>21</sup>

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Id. One of the producers stated that the declining volume resulted in part from the rapid appreciation of the yen, which caused a 50 percent increase in prices. Tr. at 43 (statement of Mr. Jerry Surprise, National Product Manager, Matsushita Industrial Company).

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Report at A-25.

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Id. In 1984, shipments to the Japanese and U.S. markets were \*\*\*\*\* and \*\*\*\*\* units, respectively. Id. In 1985, shipments within Japan grew to \*\*\*\*\* units, but U.S. shipments \*\*\*\*\* to \*\*\*\*\* units. Id. This trend continued in 1986, when shipments within Japan reached 460,000 units and shipments to the United States hit \*\*\*\*\* units. Id. However, in 1987, sales in Japan are predicted to hit \*\*\*\*\* units while shipments to the U.S. are predicted to \*\*\*\*\* to \*\*\*\*\* units. Id.

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Id. In 1988, LCD television shipments to other markets are predicted to be \*\*\*\*\* units, while shipments to the United States are predicted to be \*\*\*\*\* units. At the hearing, representatives of the Japanese producers indicated that they focused their efforts initially on the two largest markets, the  
(Footnote continued on next page)

These facts allow us to make several assumptions about the intentions of Japanese producers. First, it appears that, even with the increase in the number and size of companies producing LCD televisions, the growth in the domestic market for LCD televisions will not be as rapid in the future. It also appears that the Japanese are making efforts to develop their home market and cultivate other export markets in order to reduce their dependency on U.S. sales revenue. Based on current production and reasonable inferences drawn from current information and projections, we conclude that the value and volume of exports to the United States will continue to increase, although at a much more modest rate than in the past.

#### The Affected Domestic Industry

No manufacturers in the United States produce LCD  
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televisions. However, there are two industries in the United States that potentially could be affected by dumped Japanese imports of LCD televisions. One is the domestic CRT television

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(Footnote continued from previous page)  
United States and Japan. Tr. at 45-47. They have developed the computer chips necessary to produce televisions for the European market and are now working on increasing sales in those markets. Id.

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Report at A-2.

industry, and the other consists of manufacturers that currently use LCD technology in a variety of military and business applications and that might seek to enter the consumer segment of the LCD technology market. After considering the effect of dumped LCD televisions on both of these domestic industries, we determine that the effect would not be material.

#### Effect on the CRT Television Industry

In a 751 review, it is logical to assess the impact of the proposed modification on the domestic industry that was examined in the original investigation and that is protected from material injury by the antidumping order. The original investigation, which resulted in the imposition of antidumping order T.D. 71-76, examined the impact of dumped imports of Japanese televisions on the domestic television industry.<sup>23</sup> At the time of that investigation, LCD technology did not exist and the domestic television industry consisted entirely of producers of CRT televisions. We therefore will determine the likely effect of excluding LCD televisions from the antidumping order on the domestic CRT television industry.

As noted above, foreign manufacturers and importers are likely to increase their sales of LCD televisions if they are excluded from the order. However, we conclude that such increases will not cause or threaten material injury to the domestic television industry because, as indicated by the evidence and testimony in the record, the cross elasticity of demand between LCD televisions and CRT televisions is extremely low, so that for all intents and purposes they do not compete in the marketplace. Moreover, even with such increases, import penetration of LCD televisions as a share of apparent domestic consumption of televisions will remain negligible and incapable of causing or threatening material injury.

#### Material Injury

An analysis of the technology, manufacturing processes, channels of distribution, marketing strategies, and key characteristics of the two kinds of televisions indicates significant differences between them. The basic technology of an LCD television is a layer of liquid crystals sandwiched between two layers of glass. The liquid crystals are stimulated by a grid of transistors that has been applied to one of the glass plates. Each transistor is

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We recognize that there are several US producers of flat panel displays. However such panels display video images and are not capable of receiving broadcast signals. As such they are not included in the domestic television industry for purposes of this investigation.

attached to a picture element in the screen. The transistors stimulate each of the picture elements separately, with the liquid crystals acting as an optical shutter, to create the image on the screen.<sup>25</sup> In a CRT television, an electron gun generates a beam of electrons and deflects the beam onto the inside faceplate of the television tube. Light is created by the electron bombardment of red, blue, and green phosphor dot trios,<sup>26</sup> which create the color picture.

The manufacturing processes of LCD and CRT televisions are also different. Manufacturing LCD televisions requires a much cleaner environment than the manufacture of CRT televisions and the differences in the physical characteristics between panels and picture tubes require significantly different material handling machinery. Thus, it would be extremely difficult, if not impossible, to produce LCD televisions in a production facility designed to produce CRT televisions.<sup>27</sup> Moreover, because of the differences in machinery and the differences in technology, workers are required to perform different tasks on the production lines for LCD and CRT televisions.

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Report at A-5 and A-6.

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Color Picture Tubes from Canada, Japan, The Republic of Korea, and Singapore, Inv. Nos. 731-TA-367-370 (Preliminary),  
HRTMO Pub 1027 (1987) at A-2.

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See Report at A-24.

The channels of distribution and marketing strategies for CRT and LCD televisions are also different. LCD televisions are sold in a wide variety of stores in which CRT televisions are not sold, including sporting goods stores, camera stores, and jewelry stores.<sup>28</sup> Manufacturers of LCD televisions target single-person viewing, particularly out-of-doors, where a CRT television is not easily viewed.<sup>29</sup>

Finally, and most important in evaluating the competitive relationship between LCD and CRT televisions, the key characteristics of imported LCD televisions and CRT televisions for consumers are different. LCD televisions are small, lightweight, battery-operated, portable sets, designed for outdoor viewing by a single person at close range for a short period of time. The largest LCD television marketed in the United States has a 3.5 inch diagonal screen and weighs less than 2 lbs. LCD televisions operate without an external power source and require external light to produce the image. Because of their suitability for outdoor viewing in bright sunlight, their indoor picture quality is much inferior. And because of their small screen size and limited viewing angle, they can comfortably be watched by only one person and for less than an hour at a time.

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Id. at A-17.

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Id.

In contrast, CRT televisions are designed for indoor viewing by groups of people for sustained periods of time. U.S.-produced CRT televisions generally have a screen size of 13 inches or greater, weigh over 25 pounds, and offer poor, if any, outdoor reception.<sup>30</sup>

Clearly, consumers would not consider LCD televisions as substitutes for CRT televisions. Moreover, U.S. producers of television receivers questioned by the Commission staff confirmed that LCD televisions do not compete with CRT televisions.<sup>31</sup>

Modification of the antidumping duty order to exclude a product that does not compete sufficiently with the product produced by the domestic industry is consistent with past Commission practice. In Synthetic L-Menthionine from Japan,<sup>32</sup> the Commission modified an antidumping order to exclude synthetic L-methionine because it occupied a distinct segment of the market and did not compete with the domestic like product. In Color Television Receivers from the Republic of Korea and Taiwan, the Commission specifically approved the exclusion from its injury determination of products that occupy a "discrete and insular"

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Report A-3-A-7; Tr. at 10-12, 32, 44.

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Report at A-28 and A-29.

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Inv. No. 751-TA-4, USITC Pub. 1167 (1981).

segment of the market and that are not "competitive" with  
 domestically produced products.<sup>33</sup> Moreover, the Commission  
 indicated that one possible rationale for modifying the order  
 would be a determination that, as a result of technological  
 developments, an imported product no longer had a competing  
 counterpart in the domestic market. In such a case, the  
 Commission said, "it could make sense to drop that product from  
 the finding upon a showing that there was indeed no competition  
 between the import and any segment of the domestic industry  
 protected from material injury by the order."<sup>34</sup>

Imported LCD televisions from Japan do not compete with  
 domestically produced CRT televisions. We therefore conclude  
 that modification of antidumping order T.C. 71-76 to exclude LCD  
 televisions from Japan will not materially injure the domestic  
 television industry.

#### Threat of Material Injury

Determinations of threat of material injury must relate to future  
 injury that is real and imminent, not speculative and

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Inv. Nos. 731-TA-134 and 135 (Final), USITC Pub. 1514 at  
 17-18 (1984). The Commission did not follow that approach in  
 that case because there was no discrete and insular segment of  
 the market. See id. at 19.

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Television Receiving Sets from Japan, Inv. No. 751-TA-2,  
 USITC Pub. 1153, at 19 (1981). This case also concerned  
 modification of T.D. 71-76.

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conjectural. That is, a determination that the domestic television industry will be threatened by material injury if the antidumping order is modified to remove LCD televisions must be based on a determination that competition between imported LCD televisions and domestically produced televisions is likely in the foreseeable future. There is no hard evidence to support such a conclusion.

Competition between imported LCD televisions and domestically produced televisions could arise if either of two developments occurred: (1) LCD televisions become competitive with domestic CRT televisions, or (2) the domestic television industry begins to produce LCD televisions.

In order to compete with CRT televisions, LCD televisions would have to be of comparable screen size. There are significant cost and technological barriers to production of LCD televisions in sizes comparable to domestically produced CRT televisions. Indeed, the technology currently does not exist for producing large LCD televisions with a picture image of acceptable quality in terms of resolution and contrast or with an adequately wide viewing angle. Neither is there evidence that such technology will be developed in the foreseeable future at

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commercially reasonable costs. Moreover, even if the technology were to be developed, new production methods would have to be designed and acquired. Clearly the development of large screen LCD televisions is not imminent. The possibility of future competition between LCD and CRT televisions is rendered even more remote by the fact that CRT televisions are continually being improved and enlarged.<sup>37</sup> The possibility that the domestic CRT television producers could be materially injured by competitive imports of LCD televisions is therefore too speculative and remote to constitute a threat under 19 U.S.C. (1677(7)(F)).

The second possibility, that injury will result from competition between imported LCD televisions and domestically produced LCD televisions, is even more remote and speculative. There is no evidence that LCD televisions will be produced by a domestic industry in the near future. Of 20 domestic producers of television receivers questioned, only one producer indicated that it had plans to pursue the LCD opportunity said that such plans were contingent on favorable market dynamics and that its efforts to date are limited to business feasibility

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Tr. at 19-21, 34-36, 56-58.

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Tr. at 6, 30, 35.

investigations. Among the reasons given for not pursuing LCD television production were that the transfer of technology is not economically feasible and that different production processes and marketing techniques are required.<sup>38</sup> Moreover, none of the 20 domestic firms that supplied data indicated any capital expenditures relating to LCD televisions nor any research and development expenses for LCD televisions.<sup>39</sup>

As examined more fully in our discussion of the LCD technology industry, there is no evidence that members of this industry are likely to produce LCD televisions soon. While it is possible that imported LCD televisions will compete sufficiently with domestically produced televisions at some time in the future, we find no evidence to indicate that such competition is likely. Mere speculation about what might occur at some unspecified time in the future is an insufficient basis for a finding of threat. Therefore, we conclude that modification of antidumping order T.D. 71-76 to exclude LCD televisions will not threaten material injury to the television industry in the United States.

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38  
See Report at A-28 and A-29.

39  
See Report at A-48 and A-49.

Effect on the LCD Technology Industry

The U.S. industry that employs LCD technology in military and business products could begin manufacturing LCD televisions and would, in that event, be affected by the resumed dumping of Japanese imports. Although these producers do not make LCD products for use by individual consumers, they have the potential for doing so.

The nascent U.S. LCD industry manufactures products that utilize LCD technology for military and industrial uses. Commission staff reports that seven U.S. companies currently utilize liquid crystal display technology to manufacture flat panel screens,<sup>40</sup> and four of them responded to Commission questionnaires.<sup>41</sup> Of these four, one was out of business, another uses LCD technology to manufacture computer screens and has no plans to manufacture television sets,<sup>42</sup> and a third said

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Id. at A-30. As stated earlier, none of these producers makes television sets. Id. Therefore, we need not consider the question of material injury or threat of material injury caused by Japanese imports to this U.S. industry.

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Id. at A-31.

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Id.

it also had no plans to manufacture television sets.<sup>43</sup> The fourth company to respond expressed some interest in entering this market and drew up a confidential business plan to raise capital for such a venture. However, given the proven nature of the technology and the proven demand for the product, these steps do not, in our opinion, indicate the substantial commitment to production necessary to prove material retardation.<sup>44</sup> Based on our projection that Japanese LCD television exports to the United States will grow at a modest rate, coupled with the lack of any firm commitment on the part of LCD technology companies to begin production of LCD televisions, we determine that the establishment of a domestic LCD television industry would not be materially retarded if the dumping order were modified to exclude LCD televisions from its scope.

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Id.

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Id. at A-32. The standard for determining material retardation is set out in Certain Dried Salted Codfish from Canada, Inv. No. 731-TA-199 (Final), USITC Pub. 1711 (July 1985) at 4-5. If an industry has not yet undertaken production, there must be a "sufficient indication that the industry has made a substantial commitment to commence production." Id. at 4-5. See also, e.g., Thin Sheet Glass from Switzerland, Belgium, and the Federal Republic of Germany, Inv. Nos. 731-TA-127-129 (Preliminary), USITC Pub. 1376 (1983); Certain Commuter Airplanes from France and Italy, Inv. Nos. 701-TA-174 and 175 (Preliminary), USITC Pub. 1296 (1982).

## INFORMATION OBTAINED IN THE INVESTIGATION

## Introduction

On March 4, 1971, the U.S. International Trade Commission determined that an industry in the United States was being injured by reason of imports of television receivers from Japan that were being, or were likely to be, sold at less than fair value (LTFV) within the meaning of the Antidumping Act, 1921. <sup>1/</sup> Accordingly, following the Treasury Department's dumping finding, a dumping order with respect to television receivers from Japan was published in the Federal Register as Treasury Decision (T.D.) 71-76 (36 F.R. 4597, Mar. 9, 1971). On April 28, 1987, the Commission received a request, pursuant to section 751(b) of the Tariff Act of 1930, 19 U.S.C. 1675(b), to modify T.D. 71-76 to exclude liquid crystal display television receivers (LCD TV's) from the scope of the dumping order. The request was filed by counsel on behalf of Casio Computer Co., Ltd.; Casio, Inc.; Citizen Watch Co., Ltd.; Hitachi, Ltd.; Hitachi Sales Corp. of America; Hitachi Sales Corp. of Hawaii, Inc.; Matsushita Electrical Industrial Co., Ltd.; Matsushita Electric Corp. of America; NEC Corp.; NEC Home Electronics (U.S.A.), Inc.; Seiko Epson Corp.; Sharp Corp.; Sharp Electronics Corp.; Toshiba Corp.; and Toshiba America, Inc.

On June 8, 1987, the Commission published a request for comments concerning the institution of a section 751(b) review investigation on television receivers from Japan (52 F.R. 21630). <sup>2/</sup> In response to the Commission's request for comments, statements in support of the institution of a review investigation were received from Cable Value Network; Caldor; Trader Horn; W.R. Light Company, Inc.; and 47th St. Photo. All of these firms are retailers of consumer products and argued that LCD TV's do not compete with television receivers using a cathode ray tube (CRT TV's). A memorandum in opposition to the institution of a review investigation was filed by counsel on behalf of the Independent Radionic Workers of America; the International Brotherhood of Electrical Workers; the International Union of Electronic, Electrical, Technical, Salaried and Machine Workers, AFL-CIO-CLC; and the Industrial Union Department, AFL-CIO. Their submission argued that the requisite showing of changed circumstances had not been made by the petitioners and their petition for an investigation should consequently be denied.

Effective August 20, 1987, the Commission instituted investigation No. 751-TA-14 to determine whether an industry in the United States would be materially injured, or would be threatened with material injury, or the establishment of an industry in the United States would be materially retarded, by reason of imports from Japan of LCD TV's if the antidumping order regarding such merchandise were to be modified. The hearing was held in the Commission's hearing room on November 12, 1987, at which time all interested parties were afforded the opportunity to present information for consideration

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<sup>1/</sup> Television Receiving Sets from Japan . . . , investigation No. AA1921-66, TC Publication 367, 1971. Also see section of the report entitled "Related Commission investigations."

<sup>2/</sup> Copies of the Commission's notices are presented in app. A.

by the Commission. 1/ The briefing and vote was held on December 9, 1987. The Commission's administrative deadline is December 16, 1987.

The petitioner argues that the technology, the manufacturing processes, the physical characteristics, the uses, and the manner in which LCD TV's are marketed make them different products than CRT TV's. The petitioner believes that because of these differences, the development of LCD TV's warrant changed circumstances. 2/ The petitioner also argues that there is no U.S. production of LCD TV's, and no U.S. production of CRT TV's smaller than 13-inch diagonal measure. Furthermore, the petitioner argues that U.S. producers are moving away from the production of small CRT TV's to larger CRT TV's and that in the foreseeable future there are technological limitations that prevent making larger LCD TV's to compete with comparable sizes of U.S.-produced CRT TV's. 3/ As mentioned above, respondents argue that no changed circumstances exist that justify an investigation to modify the antidumping duty order.

The available information regarding the technology, physical characteristics, and uses is presented in the section of the report entitled "Description and uses." Information regarding the manufacturing processes involved in LCD TV's is presented in the section of the report entitled "Manufacturing techniques." Information regarding marketing is presented in the section of the report entitled "Marketing strategies/advertising techniques." Information regarding the screen sizes of U.S.-produced and imported televisions is presented in the section of the report entitled "U.S. producers' shipments."

## The Products

### Description and uses

The scope of the Commission's original antidumping investigation (No. AA1921-66) included monochrome and color television receivers imported from Japan, whether assembled or not assembled, and whether finished or not finished.

The imported articles that are the subject of this investigation are included in the coverage of the dumping finding on television receivers (T.D. 71-76). The Department of Commerce (Commerce) notified the Commission in 1980 that any product imported from Japan or transshipped through countries other than Japan that is capable in its imported state of receiving a broadcast television signal and producing a video image (or can do so with the addition or assembly of insignificant parts) is covered by the dumping finding. Commerce considers this description to include LCD TV's in addition to direct

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1/ A list of witnesses appearing at the hearing is presented in app. B.

2/ See petition in investigation No. 751-TA-14, p. 4, and Petitioners' prehearing brief, pp. 5 and 6.

3/ See the transcript of the hearing held in connection with investigation No. 751-TA-14, hereinafter transcript, p. 6.

view and projection type CRT TV's. <sup>1/</sup> Exceptions include those television receivers that are in combination with other units, such as radio receivers or tape players, and monitors without the circuitry necessary to receive television signals.

The imported articles that are the subject of T.D. 71-76 are defined as follows:

- A) Complete television receivers.—Television receivers, fully assembled, that are capable of receiving a broadcast television signal and producing a video image, whether or not packaged or tested for distribution to the ultimate purchaser. These items include, but are not limited to, projection televisions and receiver monitors capable of receiving a broadcast television signal.
- B) TV assemblies.—Incomplete, unfinished, or unassembled television receivers, which, while not in finished form, are capable of receiving a broadcast television signal and producing a video image. Included in this are "kits" which contain all the parts necessary for assembly into complete receivers.

In addition to complete television receivers and TV assemblies, components and parts are imported into the United States and then assembled with other components into complete receivers. Such articles, which will be referred to as TV subassemblies, are not capable of receiving a television broadcast signal and producing a video image and are not covered by the dumping finding.

For purposes of this report, data are presented separately on CRT TV's (including projection TV's) and LCD TV's. Much of these data have been aggregated on the basis of (1) complete television receivers, and (2) TV assemblies.

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<sup>1/</sup> In July 1984 counsel for Casio Computer Co., Ltd. (Casio), Japan, requested Commerce to exclude Casio's LCD TV's from the scope of the dumping finding. It argued that Casio's LCD TV's do not contain a CRT and that, because of their small screen size, they do not compete with domestic and Japanese-produced televisions, thus not injuring the domestic television industry. In a June 1985 ruling in response to this request, Commerce found that Casio's LCD TV's are "of the same class or kind of merchandise as that within the scope of the finding because [they are] capable of both receiving a broadcast television signal and projecting a video image." Commerce also noted that the issue of injury to a domestic industry is properly addressed by the U.S. International Trade Commission. Petition in investigation No. 751-TA-14, app. C.

The petitioners requested the institution of this investigation on the basis of the alleged change in circumstances that has been brought about by the introduction of LCD TV's into the U.S. market. The LCD TV's currently being imported are small portable sets produced in both monochrome and color varieties. These televisions can operate without an external power source, but usually come with jacks for AC adaptors, other video inputs, headphones, and other attachments (small-screen CRT TV's can have the same features). Because of the technology of liquid crystals, external light must be employed to produce the visible image on the screen. This light is achieved either through an incorporated backlight or through ambient light reflected through the back of the panel. During dim conditions, the backlight must be used. Without the backlight, the power consumption is extremely low and battery life is around 5 to 8 hours. However, with the backlight in use, power consumption increases dramatically, and battery life is cut to 2 to 3 hours. The picture quality of the sets varies, but is generally not as good as that of a CRT TV, and the viewing angle is limited.

At the time of the original investigation, virtually all imported television receivers contained a cathode ray tube (CRT) and were designed to receive and display each standard U.S. television broadcast channel. The CRT's were heavy, had large power requirements due in part to the usage of vacuum tubes, and had a significant depth dimension. The overall shape and design of most television receivers sold in the United States have not changed dramatically over the years. However, there have been numerous technological developments over the last 15 years that have enhanced CRT TV's, including solid state circuitry (which has eliminated the need for vacuum tubes and reduced the power requirements), flatter screens, sharper screen corners, stereo sound, remote control, larger screen sizes (currently up to 35 inches), 1/ and cable television (which has obviated the need for full integral tuners). In addition, recent developments such as digital television and HDTV (high definition television) will allow CRT TV's to achieve sharper resolution and have more features.

In addition to these technological developments, which apply mostly to direct view CRT TV's (although some apply to all television receivers), there have been significant developments in the way the picture is displayed. Projection televisions have become increasingly popular due to technological improvements that have allowed sharper, clearer pictures. The current generation of projection televisions has almost as much resolution as CRT TV's and the screen size can be upwards of several feet.

Other research has been conducted in order to achieve a thin, flat-panel television display that would take up less room, have as much resolution as a traditional CRT-based display, and ultimately be light enough to hang on the wall. Several different technologies have been explored. The four most promising approaches are bent-neck CRT's (although screen size is technologically limited), liquid crystal displays (LCD's), gas discharge displays (sometimes called plasma displays) and electroluminescent (EL)

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1/ Unless otherwise noted herein, the term "screen size" refers to the diagonal measure of the video display.

displays. The petition, however, only requests that television receivers from Japan that contain an LCD display be excluded from the dumping order.

Small, portable televisions are currently being produced in Japan and imported into the United States in commercial quantities using bent-neck CRTs and LCD panels. These televisions have a screen size of less than six inches and are commonly called pocket TV's. Sony uses a bent-neck CRT for its popular "Watchman" series; Sanyo has introduced a bent-neck CRT model also, but it is not in wide distribution in the United States. All other pocket TV's currently on the market utilize LCD technology.

LCD TV's and bent-neck CRT TV's share many common characteristics. Both are portable and operate on batteries; they come in similar screen sizes; the average battery life between the two is similar; and they are priced in the same range. Differences are that the picture quality of the bent-neck CRT is better, and the viewing angle is greater. However, an advantage of LCD TV's is that the picture does not wash out in bright ambient light as does the picture in a CRT TV. LCD TV's are available in both monochrome and color versions. There is currently no commercially available color version of the bent-neck CRT, but one has been developed and is likely to be introduced in the near future. <sup>1/</sup>

Televisions that would incorporate any of the various flat-panel displays would have certain common characteristics also shared by traditional CRT TV's. All would have the electronic circuitry necessary to receive television broadcast signals and process them to display a video image. It is the way that the display is accomplished that differentiates the various technologies. The following definitions describe the essential characteristics that distinguish the four technologies used in flat-panel displays:

Bent-neck CRT—In a bent-neck CRT, the electron gun that shoots the scanning lines onto the TV screen is located parallel to and underneath the screen (rather than directly behind as in a traditional CRT) and shoots the electrons upward onto an acutely tilted face plate. This display is especially well suited for monochrome sets. Technological considerations of drawing a vacuum in the current configuration limit the potential screen size to under 10 inches. In addition, the display requires high voltage.

LCD panels—There are two different ways that LCD technology is currently being applied to flat-panel displays: active matrix and passive matrix. In both cases, though, liquid crystals are sandwiched between two sheets of glass and are stimulated by a grid of transistors that has been applied to one of the glass plates. The liquid crystals act as optical shutters. The

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<sup>1/</sup> Asian Sources Electronics, June 1985, p. 243.

individual picture elements can be stimulated independently, so that when they are all stimulated in a controlled way, they can display moving images.

Gas discharge displays—With this technology, an image is produced when a voltage is passed across a glass cell filled with gas—producing ultraviolet light that impinges on a phosphor coating on the wall of the cell, thus exciting the phosphor and causing it to give off visible light. With electronics, individual picture elements can be addressed and controlled to achieve moving images.

Electroluminescent (EL) displays—This technology encompasses two distinct approaches, d.c. thick-film and a.c. thin-film types. With both types, the displayed image results from the application of an electric current to a layer of phosphor and chemical coatings and to the electronic circuitry that controls the display. The phosphor becomes excited and glows. This can be controlled to produce patterns and images.

Currently, imported televisions consist principally of traditional televisions based on a single CRT for direct viewing, although projection types, bent-neck CRT types, and LCD types are rapidly gaining acceptance and popularity. U.S.-produced televisions currently sold in the U.S. market are predominantly direct-view, CRT-based, although there is fairly significant U.S. production of projection-type TV's as well. U.S.-produced televisions generally have screen sizes of 13 inches or larger and require an external power source. \* \* \*. There are no known U.S. development efforts in the area of bent-neck CRTs, but all other flat-panel technologies are being pursued in the United States. U.S. development efforts are aimed at displays for military and commercial applications, including computer terminals. Currently, the only types of televisions being produced in the United States in commercial quantities are direct view CRT TV's and projection TV's.

In general, regardless of the type of display, television receivers are used by consumers for watching broadcasts directly off the air or from a cable source. Portable, battery-operated televisions are frequently used out of doors, for instance at sporting events to see instant replays, closeups, etc. Television receivers may also be used as display units for video games, video tape recorders, or computers. LCD displays are also being used increasingly as viewing displays in video cameras.

In terms of potential future developments of LCD TV's, industry sources indicate that a significant effort is underway by Japanese producers to

produce larger screen-sized versions. 1/ The problems that are currently being faced include limitations in production equipment. Commercially produced small-screen LCD TV panels use much of the same production equipment that is used in the transformation of silicon wafers for integrated circuits. The maximum size wafer that most current-generation equipment can handle is 8 inches in diameter. Thus, large investments in new types of equipment will be necessary to produce larger screen-sized LCD TV's. 2/ Other problems involve the viewing angle and uniform and efficient flat backlighting. According to \* \* \* a leading industry expert, these problems are surmountable and large-screen LCD TV's will soon be available in commercial quantities. In fact, \* \* \* stated that in September 1987 he visited Japan and saw a 14-inch LCD television that had been made by \* \* \*. 3/

In addition, development is currently under way in LCD technology for its application to projection televisions. With this product, light passes through the LCD panel and the image is magnified and projected onto a screen. Currently, products with this technology are being used as a type of overhead projector where the input is typically from a personal computer and graphics generated by the computer are projected and displayed on a screen. Image size can vary depending on how far the projector is from the screen. Several U.S. firms are producing this type of overhead projector in both monochrome and color versions, 4/ and there is at least \* \* \* developing the technology for television application (\* \* \*). 5/

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1/ LCD TV's with screen sizes larger than the 3-1/2 inches currently available have been announced by several Japanese producers: Matsushita announced a 220-inch panel, which could be used to display a video image, in Asian Sources Electronics, June 1985; Toshiba announced a 10-inch version in Home Furnishings Digest, Dec. 2, 1985; Hitachi announced a 6.5-inch version in the Journal of the Electronics Industry, February 1987; Seiko announced a 40-inch projection version in Electronics, May 14, 1987; and Mitsubishi announced a 136-inch direct-view version in the Journal of the Electronics Industry, September 1987. According to the Electronic Industries Association (EIA), the 1986 Winter Consumer Electronics Show included 3- to 6-inch LCD TV's. The televisions were reported to be "high-resolution sets with very good picture quality and competitive prices." EIA indicates that most manufacturers are still in the developmental stage, concentrating their efforts on producing larger screen (9-to 13-inch) LCD TV's in the next few years. EIA reports that price is the dominant market restraint and that those producers which currently produce LCD TV's are "cutting prices to speed market acceptance and heighten competition" ("Electronic Market Data Book 1987," Electronics Industry Association, Washington, DC, p. 14.). See also petitioners' posthearing brief, appendix, pp. 9-10. For more information concerning the Japanese television industry, see section of the report entitled "The producers in Japan."

2/ A new generation of equipment, especially the mask aligner, has recently been developed and produced exclusively for the production of larger screen flat-panel displays like LCD's (up to 16 inches in diagonal measure). The known producers of this type of equipment are Nikon and Canon of Japan and MRS, ASET, and Tamarack Scientific of the United States. These machines can cost up to \$1.4 million each.

3/ Telephone interview with \* \* \* on Oct. 6, 1987. \* \* \*.

4/ Telephone interview with \* \* \*.

5/ In a telephone interview on Nov. 9, 1987, with \* \* \*.

## Manufacturing techniques

The manufacturing process of television receivers is basically the assembly of electronic, electric, and mechanical components with formed metal, plastic, and wood parts (cabinet). The assembly process is conducted along a production line where each worker performs a specific function. Different types of televisions require different types of parts and components, but, in general, all must have a tuner, intermediate frequency amplifier, audio processing circuitry, color separation circuitry, speaker(s), and a display device, as well as a housing, user controls, power source, and an antenna (see fig. 1). Other devices such as deflection yokes, degaussing coils, mounting brackets, etc. are specific to individual types of televisions.

Parts and components may be produced by the same company or may be purchased from an outside supplier. Typically, electronic subassemblies are manufactured by the television assembler due to individual design characteristics.

Production of electronic subassemblies usually involves the stuffing of printed circuit boards with discrete components, integrated circuits, and hybrid circuits. This process is normally fairly automated using a variety of machines, including radial and axial component insertion machines, robots, surface mount machines, and other similar machines. The specific machines used depend on the level of technology of the producer. There are also components and parts that do not lend themselves to automatic insertion and must be attached to the printed circuit board by hand. All components are soldered onto the board and tested to ensure accuracy and quality. 1/

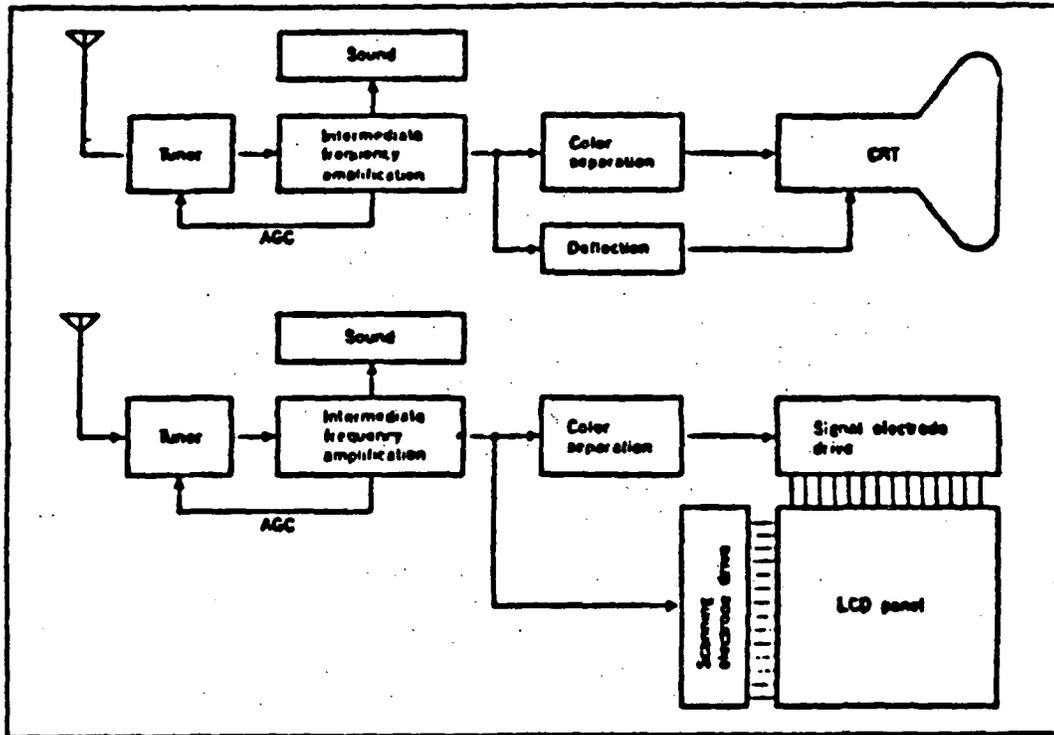
One of the main differences in manufacturing techniques between the different types of televisions is in the production of the display devices. Picture tubes, projection television displays, and flat-panel displays all require unique production techniques. 2/ A detailed description of the manufacturing process of television picture tubes is presented in the Commission's report for investigations Nos. 731-TA-367 through 370 (Preliminary) involving color picture tubes from Canada, Japan, the Republic of Korea, and Singapore (USITC Publication 1937, January 1987). Projection television displays use three CRT's that are coordinated to produce an image that is projected onto a screen. The three CRT's (one red, one blue, and one green), while different in design and application, are generally similar in production techniques to picture tubes.

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1/ The principal difference between the production of printed circuit board subassemblies of CRT TV's and LCD TV's is that the boards for the LCD TV's are typically smaller and stuffed more densely. In addition, some Japanese producers reportedly use flexible printed circuit boards. These boards are stuffed in a similar way to rigid printed circuit boards.

2/ During a telephone interview with \* \* \*. According to \* \* \*, some Japanese producers of semiconductors have yield rates as high as 95 percent. This, in turn, can be translated into high yields for LCD TV's. In addition, because the Japanese produce LCD panels for military uses, commercial uses (lap-top computers for example), and consumer products such as LCD TV's, they are able to use panels that would be considered rejects for military and commercial purposes for consumer purposes that do not require as high a quality of display.

Figure 1  
Basic circuitry of color LCD TV and color CRT TV



Source: Journal of the Electronics Industry, January 1987.

The various flat-panel displays (except bent-neck CRT) are produced differently than CRT-based displays and differently from each other. However, all use similar techniques for applying layers of materials to a glass substrate that must be conducted in a dust-free "clean room." In addition, all must go through extensive testing to ensure quality. A brief description of each illustrates the differences and similarities.

LCD displays.—An active matrix LCD display is made in several steps. The most critical is the application of a grid of transistors to a glass substrate through a process called photoetching. The material most commonly used is indium tin oxide, which is a relatively clear conductive metal. The layering process is done 6 to 10 times to build up the grid of transistors that act as electrodes. A dielectric coating must be applied on top of the grid by either sputtering or evaporation techniques. That substrate is joined to another glass substrate with an adhesive around the perimeter, except for one small gap. The adhesive acts as a thin spacer between the glass substrates. A vacuum is pulled in the space between the two pieces of glass, and liquid crystals are injected through the small gap. Once the panels are

completely sealed and polarizers have been applied to the glass surface, semiconductor devices are attached to the perimeter of the panel to drive or activate the transistor grid. The display is then assembled with the rest of the parts and components. For color LCD TV's, color filters are applied to the panel. Much of the production technology utilized for LCD displays, especially the way that the transistors are applied to the glass substrate, is borrowed from integrated circuit fabrication techniques. 1/

Electroluminescent (EL) displays.—While not currently in commercial production for television receivers, electroluminescent technology has potential application in that area. The production of EL displays utilizes similar technology as that used in LCD displays, but to achieve a different result. A glass substrate is built up by first coating it with a layer of indium tin oxide. Photoetching is conducted to achieve a pattern of electrodes on the substrate. Then, a thin film of a dielectric material is deposited through either sputtering or evaporation techniques. The next layer is a light emitting substance, usually phosphors, followed by another dielectric layer. Another electrode pattern perpendicular to the first is applied over the phosphors. The back of the panel must then be hermetically sealed. Semiconductor devices are attached to the perimeter of the panel to activate the picture elements to form images. The completed display is then assembled with the rest of the components and parts. 2/

Gas discharge (plasma) displays.—These displays, also not currently used in commercial production of televisions, are made in a similar way to LCD panels, where two glass substrates that have had layers of electrodes and dielectrics applied are sandwiched together. A spacer separates the two substrates. A vacuum is pulled in this area, but, instead of injecting liquid crystals, gas is injected. The gas is usually a mixture of neon and another gas. New developments with xenon, however, may prove to be successful in television application. Instead of using color filters, as in LCD panels, a layer of phosphors is applied to provide the color for the display. Once the display has been sealed, semiconductor devices are attached to the perimeter which activate the picture elements. The completed display is then assembled with the rest of the components and parts. 3/

Major input factors in television assembly.—In its producers' questionnaire, the Commission collected data on such major inputs in television assembly as purchases of imported articles, purchases of U.S.-made articles, and direct labor. Data compiled from the questionnaires are presented in table 1. Table 1 reveals that during the period under investigation, imported raw materials and supplies used in the production of television receivers accounted for between 38 and 40 percent of the total manufacturing cost of U.S.-produced CRT TV's.

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1/ P.A. Penz, R.W. Haisty, and K.H. Surtani, Encyclopedia of Semiconductor Technology, ed. Martin Grayson (New York: John Wiley and Sons, Inc., 1984), pp. 96-122.

2/ L.E. Tannas, Jr. Flat-Panel Displays and CRT's, ed. Lawrence Tannas, Jr. (New York: Van Nostrand Reinhold Co. 1985), pp. 237-288.

3/ Ibid., pp. 342-407.

Table 1

Television receivers: Value 1/ of U.S.-made and imported articles used in U.S. production of complete CRT TV's, and the value added by the U.S. establishments in direct labor compensation 2/ and other manufacturing costs, 1984-86, January-June 1986, and January-June 1987 3/

Item	1984	1985	1986	January-June—	
				1986	1987
Value (million dollars)					
Raw materials and supplies used:					
Imported articles:					
Picture tubes.....	***	***	***	***	***
Cabinets.....	***	***	***	***	***
Other.....	***	***	***	***	***
Total.....	975	993	1,162	539	576
U.S.-made articles:					
Picture tubes.....	676	622	764	371	392
Cabinets.....	233	236	264	129	129
Other.....	350	312	320	161	167
Total.....	1,259	1,171	1,347	661	688
Direct labor.....	174	176	181	88	82
Other manufacturing costs.....	175	181	228	121	123
Total manufacturing costs.....	2,583	2,522	2,918	1,410	1,469
Percent of total value					
Raw materials and supplies used:					
Imported articles:					
Picture tubes.....	***	***	***	***	***
Cabinets.....	***	***	***	***	***
Other.....	***	***	***	***	***
Total.....	38	39	40	38	39
U.S.-made articles:					
Picture tubes.....	26	25	26	26	27
Cabinets.....	9	9	9	9	9
Other.....	14	12	11	11	11
Total.....	49	46	46	47	47
Direct labor.....	7	7	6	6	6
Other manufacturing costs.....	7	7	8	9	8
Total manufacturing costs.....	100	100	100	100	100

1/ Values are f.o.b. U.S. production (assembly) establishment(s).

2/ Includes direct wages and fringe benefits.

3/ \* \* \* U.S. producers, accounting for \* \* \* percent of reported total domestic shipments in 1986, supplied data on the value of U.S.-made and imported articles used in the production of CRT TV's, and the value added by their U.S. establishments in direct labor compensation and other manufacturing costs.

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

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

U.S. tariff treatment

Complete CRT TV's are classified in item 684.92 of the Tariff Schedules of the United States (TSUS) and are dutiable at a rate of 5 percent ad valorem if imported from a most-favored-nation (MFN) country. 1/ Imported monochrome CRT TV assemblies are classified in TSUS item 684.94 at a duty rate of 3.7 percent ad valorem, and imported color CRT TV assemblies are classified in TSUS item 684.96 at a duty rate of 5 percent ad valorem. All of the foregoing articles are dutiable at 35 percent ad valorem if imported from non-MFN countries.

Complete LCD TV's and LCD TV assemblies are classified in TSUS items 684.98 and 685.04 and are dutiable at rates of 5 percent and 3.7 percent ad valorem, respectively, if imported from an MFN country. All of the foregoing articles are dutiable at 35 percent ad valorem if imported from non-MFN countries.

Articles imported under TSUS items 684.92 through 685.04 are not eligible for duty-free entry under the provisions of the Generalized System of Preferences (GSP). 2/ Television receivers manufactured or assembled abroad in whole or in part of U.S.-fabricated components may be admitted under TSUS item 807.00. 3/ The duty on such imports is assessed on their full value less the cost of the U.S.-fabricated components contained therein.

In addition to the statutory duty rate, imports of complete television receivers and TV assemblies from Japan have been subject to special dumping duty assessments since September 1970. If it is determined that such imports have been sold for export to the United States at LTFV, they are subject to special dumping duties in accordance with T.D. 71-76. 4/

In April 1977, liquidation was suspended for entries of television receivers from the Republic of Korea (Korea) and Taiwan. This suspension was put into effect to examine possible circumvention of the original dumping finding by Japanese manufacturers that shipped television receivers in kit form to these countries for assembly. Such television receivers were allegedly then exported to the United States as products of Korea and Taiwan. Following examinations of exports of televisions from these countries, Commerce concluded that transshipment of products was not occurring and instructed the Customs Service to resume liquidation of all entries of

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1/ MFN rates are applicable to imported products from all countries except those Communist countries and areas enumerated in general headnote 3(d) of the TSUS. Imports from such countries and areas are subject to non-MFN or column 2 duty rates.

2/ The GSP, under title v of the Trade Act of 1974, provides duty-free treatment to specified eligible articles imported directly from designated beneficiary developing countries.

3/ For additional information regarding imports under TSUS item 807.00, see section of the report entitled "U.S. imports."

4/ For a discussion of Commerce's most recent antidumping administrative review regarding television receivers from Japan, see section of the report entitled "Nature and extent of LTFV sales."

televisions from Taiwan and Korea (46 F.R. 30167, June 5, 1981, and 47 F.R. 50539, Nov. 8, 1982). 1/

On April 17, 1987, the President issued Proclamation 5631, imposing a 100 percent duty on certain articles from Japan (52 F.R. 13413, Apr. 22, 1987). These articles included complete color television receivers (CRT TV's) with a video display diagonal of 18, 19, or 20 inches provided for in TSUS item 684.92. This action was taken as a result of violations of major provisions of the "Arrangement Concerning Trade in Semiconductor Products" signed in September 1986. The United States Trade Representative suspended the duty on 20-inch color television receivers effective June 16, 1987 (52 F.R. 22693, June 15, 1987) and suspended the duty on 18-inch and 19-inch color television receivers effective November 10, 1987 (52 F.R. 43146, Nov. 9, 1987).

#### Related Commission investigations

On March 22, 1968, a petition was filed with the Treasury Department on behalf of certain U.S. television manufacturers and unions alleging that monochrome and color television sets produced in Japan were being sold in the United States at LTFV. The Department of the Treasury on December 5, 1970, determined that sales at LTFV were occurring (35 F.R. 1854), and the matter was referred to the Commission for a determination of injury. In March 1971, the Commission determined that a domestic industry was being injured. 2/ The Commission's unanimous determination was based on three factors: (1) imports of television receivers from Japan that Treasury determined had been sold at LTFV had increased to supply a substantial share of the U.S. market; (2) the sellers of the LTFV Japanese receivers had for the most part undersold U.S. manufacturers of television sets in the domestic market; and (3) sales of the LTFV television sets had contributed substantially to declining prices of domestically produced television receivers. 3/ On March 9, 1971, a finding of dumping was published by the Treasury Department, T.D. 71-76 (36 F.R. 4597). 4/

On July 28, 1980, an application for a review of T.D. 71-76 was filed under section 751(b) of the Tariff Act of 1930, 19 U.S.C. 1675(b), by Sanyo Electric Co., Ltd., and Sanyo Electric, Inc. This application requested the

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1/ In April 1984, the Commission determined that an industry in the United States was materially injured or threatened with material injury by reason of imports of color television receivers from Korea and Taiwan that were found by Commerce to be sold in the United States at less than fair value. Color Television Receivers from the Republic of Korea and Taiwan: Determinations of the Commission in Investigations Nos. 731-TA-134 and 135 (Final) . . . , USITC Publication 1514, April 1984.

2/ Television Receiving Sets from Japan . . . , investigation No. AA1921-66, TC Publication 367, 1971.

3/ Ibid., p. 3.

4/ Subsequent to the finding of dumping, a number of petitions involving television receivers were filed at the Commission under different statutes for relief. A list of the investigations resulting from these petitions is presented in app. C.

Commission to determine, in light of changed circumstances, whether an industry in the United States would be materially injured, or would be threatened with material injury, by reason of imports of the television receivers covered by the antidumping order, if the order were to be modified or revoked. Similar applications were filed in August 1980 by Matsushita Electronics Industries Co., Ltd.; Matsushita Electric Corp. of America; Panasonic Hawaii, Inc.; Panasonic Sales Co.; Hitachi Ltd.; Hitachi Sales Corp. of America; and Hitachi Sales Corp. of Hawaii. Letters supporting the applications were also filed in August by Victor Co., Mitsubishi Electronics Corp., and Sharp Electronics Corp. Memorandums opposing institution of the investigation were filed in the same month by Zenith Radio Corp. and counsel for the Electronic Industries Association and the Committee to Preserve American Color Television (COMPACT).

On September 16, 1980, the Commission instituted investigation No. 751-TA-2 for purposes of reviewing the Commission's determination in Television Receiving Sets from Japan, investigation No. AA1921-66, TC Publication No. 367, 1971. In June 1981, the Commission determined that an industry in the United States would be threatened with material injury by reason of imports of television receiving sets from Japan covered by antidumping order T.D. 71-76, if the order were to be modified or revoked. 1/

#### Nature and Extent of LTFV Sales

The responsibility for administering the antidumping law was transferred from the Department of the Treasury to the Department of Commerce on January 2, 1980, in accordance with title I of the Trade Agreements Act of 1979. 2/ Acting under the responsibility granted it in title VII of the Tariff Act of 1930 (section 751(a)(1)), Commerce regularly conducts administrative reviews of its outstanding dumping findings. On March 20, 1987, Commerce published a notice in the Federal Register (52 F.R. 8940) of the final results of an administrative review of its outstanding dumping finding on television

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1/ Television Receiving Sets from Japan: Determination of the Commission in Investigation No. 751-TA-2 . . . ., USITC Publication 1153, June 1981. Matsushita and other Japanese producers sought review of the Commission's determination by the Court of International Trade (CIT). In July 1983 the CIT reversed the Commission's determination and found that no threat of material injury existed (Matsushita Electric Industrial Co. v. United States, 569 F. Supp. 853 (CIT 1983)). The domestic producers petitioned the CIT for a rehearing, which was denied (Matsushita Electric Industrial Co. v. United States, 573 F. Supp. 122 (CIT 1983)). The Commission then appealed to the Federal Circuit, which reversed the CIT and held that the Commission's determination not to revoke the order was supported by substantial evidence (Matsushita Electric Industrial Co. v. United States, 750 F. 2d 927 (Fed. Cir. 1984)).

2/ A chronology of Customs and Treasury actions during 1968-80 is presented in app. D.

receivers from Japan. 1/ The review covered 8 manufacturers and/or exporters of monochrome and color television receivers from Japan and generally covered the 2-year period from April 1, 1981, to March 31, 1983. Commerce issued a final determination that dumping margins (expressed as weighted averages on all sales during the period of review) exist as shown in the following tabulation:

<u>Japanese manufacturer/exporter</u> <u>1/</u>	<u>Time period</u>	<u>Margin (percent)</u>
Fujitsu General Co.....	4/81-3/82	0.06
	4/82-3/83	0.15
Funai Electric Co.....	4/81-3/82	7.63
	4/82-3/83	21.93
Hitachi Co.....	4/81-3/83	0.16
Mitsubishi Electric Co.....	4/81-3/82	0.05
	4/82-3/83	0.66
Nippon Electric Corp. (NEC).....	4/81-3/82	0.90
Otake Trading Co.....	4/82-3/83	0.00
Sanyo Electric Co.....	4/81-3/82	0.00
	4/82-3/83	2.86
Toshiba Corp.....	4/81-3/82	<u>2/</u> 0.00

1/ As a result of a court order, Commerce was unable to complete the reviews of Toshiba and NEC for the second period. It will publish the final results of those reviews at a later date. Imports from Toshiba and NEC will be assessed a duty of 0 percent and 0.86 percent, respectively—the rate published in the final results of its most recent administrative review. Sony Kabushiki Kaisha has been removed from the dumping finding. See the Federal Register of Feb. 13, 1975 (40 F.R. 6647).

2/ No commercial shipments during the period.

The margins found on exports by Hitachi Co. and Fujitsu General Co. were considered as de minimis by Commerce. For shipments from Matsushita, Victor, and Sharp, the margins are 0 percent, 0.28 percent (de minimis), and 0 percent, respectively—the rate published in the final results of the last administrative review for each of these firms (50 F.R. 24278, June 10, 1985). For shipments from a new exporter not covered by Commerce's administrative

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1/ Since Mar. 20, 1987, Commerce has released the preliminary results of two administrative reviews of the outstanding dumping finding on television receivers from Japan. The reviews covered 6 manufacturers and/or exporters of monochrome and color television receivers from Japan and generally covered the periods Apr. 1, 1982, to Mar. 31, 1983, and Mar. 1, 1985, through Feb. 28, 1986. Changes in the rates of cash deposits do not take effect until notice of the final results of an administrative review are published. For details of the results of the preliminary reviews see the Federal Register of July 20, 1987 (52 F.R. 27234), and the Federal Register of Nov. 23, 1987 (52 F.R. 44926).

reviews, whose first shipment of Japanese television receivers occurred after March 31, 1983, and who is unrelated to any reviewed firm, the rate is 21.93 percent. 1/ This rate also applies to those Japanese manufacturers and/or exporters of LCD TV's who do not produce CRT TV's, and have not taken part in any of Commerce's administrative reviews of the existing antidumping order. 2/ A summary of the rates applied to imports of LCD TV's are shown in the following tabulation:

<u>Japanese manufacturer/exporter</u> <u>1/</u>	<u>Margin</u> <u>(percent)</u>
Casio Computer Co., Ltd..... <u>2/</u>	21.93
Citizen Watch Co., Ltd..... <u>2/</u>	21.93
Hitachi, Ltd..... <u>3/</u>	0.16
Matsushita Electric Co.....	0.00
NEC.....	0.90
Seiko Epson Corp..... <u>2/</u>	21.93
Sharp Corp.....	0.00
Toshiba Corp.....	0.00

1/ Petitioners in investigation No. 751-TA-14. \* \* \*

2/ The "new exporter" rate applied to shipments from an exporter not covered by Commerce's final administrative reviews effective Mar. 20, 1987. Prior to Mar. 20, 1987, the new exporter rate was 0.86 percent. On Apr. 28, 1987, the Commission received a request to modify T.D. 71-76 to exclude LCD TV's from the scope of the dumping order.

3/ Considered as de minimis by Commerce.

#### The U.S. Market

The market for television receivers in the United States is relatively mature, with virtually all demand for first sets in existing households satisfied. It is estimated that 99.8 percent of all U.S. households have at least one television set. The primary demand is for replacement sets, second or even third sets for individual households, and for new households. The petitioner alleges that there are different channels of distribution and marketing strategies for CRT TV's and LCD TV's.

#### Channels of distribution

U.S. producers and importers of television receivers distribute a majority of their products to the ultimate consumer through (1) private-label dealers, (2) mass merchandisers such as department and discount stores, and (3)

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1/ Prior to Mar. 20, 1987, the rate applied to shipments from an exporter not covered by Commerce's administrative reviews, and who is unrelated to any reviewed firm, was 0.86 percent.

2/ Telephone interview with \* \* \*, Office of Compliance, U.S. Department of Commerce, Sept. 24, 1987, and personal interview with \* \* \*, U.S. Customs Service, Oct. 1, 1987.

full-service dealers. Television producers also sell sets to buying groups, an association of retailers with members falling into both the mass merchandiser and full-service dealer groups.

Private-label dealers such as Sears, J.C. Penney, and Montgomery Ward supply prospective producers with specifications for a particular model of television receiver, or survey the specifications of sets currently being produced and pick the models that best meet their needs. These private-label dealers then solicit bids from producers and negotiate contracts for particular receivers for a model year.

Full-service dealers purchase televisions either directly from producers or importers, or indirectly from a wholesaler/distributor. Mass merchandisers obtain receivers in a similar fashion.

Petitioner argues that "distribution channels for LCD TV's are far broader than those for CRT TV's." <sup>1/</sup> Petitioner states that LCD TV's are sold in outlets such as sporting goods stores, camera stores, and jewelry stores, and that domestically produced CRT TV's are not sold in such channels. Table 2 presents data on domestic shipments of U.S.-produced and imported TV's to specific markets.

The majority of U.S.-produced CRT TV's are shipped to "other" markets, which consist mainly of sales/marketing divisions of the individual companies. Most CRT TV's imported from Japan are shipped to \* \* \*. A large percentage of LCD TV's from Japan are shipped to \* \* \*.

#### Marketing strategies/advertising techniques

The petitioner argues that the marketing of LCD TV's stresses the portability of these televisions. <sup>2/</sup> Samples of promotional materials for LCD TV's show that the manufacturers have geared their marketing strategies to single-person viewing, particularly out-of-doors, where the typical CRT TV is not easily viewed. <sup>3/</sup>

An examination of advertisements reveals that some retailers advertise both CRT TV's (of many sizes) and LCD TV's together. For example, a recent advertising insert for Evans Distributors and Jewelers shows Casio's monochrome (2.7-inch screen) and color (2-inch screen) LCD TV's immediately next to Sony's monochrome Watchman with a 2-inch bent-neck CRT. <sup>4/</sup> Also shown on the same page are 25- and 26-inch CRT TV's by Emerson, General Electric (GE), and Magnavox; a 5-inch monochrome CRT TV and AM/FM radio combination by GE; <sup>5/</sup> various VCR equipment and cameras; and entertainment furniture.

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<sup>1/</sup> Petition in investigation No. 751-TA-14, p. 13.

<sup>2/</sup> Ibid., app. C, and petitioners prehearing brief, pp. 16 and 17.

<sup>3/</sup> Ibid., app. A.

<sup>4/</sup> Evans Distributors and Jewelers insert in the Washington Post, Oct. 4, 1987, p. 17-y. A similar display is shown on the cover of Evans Distributors and Jewelers insert in the Washington Post, Oct. 11, 1987.

<sup>5/</sup> Combination TV's are not subject to T.D. 71-76.

Table 2

Television receivers: Total U.S. shipments 1/ of U.S.-produced and imported TV's to specific markets, by types, 1984-86

Market and year	(Percent of total U.S. shipments)		
	CRT TV's—		LCD TV's—
	U.S. producers' total U.S. shipments 2/	Total U.S. shipments of TV's imported from Japan 3/	Total U.S. shipments of TV's imported from Japan 4/
<b>Private-label:</b>			
1984.....	18	***	***
1985.....	18	***	***
1986.....	25	***	***
<b>Discount stores: <u>5/</u></b>			
1984.....	***	***	***
1985.....	***	***	***
1986.....	***	***	***
<b>Department stores: <u>6/</u></b>			
1984.....	3	***	***
1985.....	3	***	***
1986.....	4	***	***
<b>Catalog houses:</b>			
1984.....	***	***	***
1985.....	***	***	***
1986.....	***	***	***
<b>Full-service dealers:</b>			
1984.....	3	21	***
1985.....	5	18	***
1986.....	6	13	***
<b>Buying groups (cooperatives):</b>			
1984.....	3	8	***
1985.....	6	13	***
1986.....	8	13	***
<b>Other: <u>8/</u></b>			
1984.....	69	***	***
1985.....	64	***	***
1986.....	53	***	***
<b>Total:</b>			
1984.....	100	100	100
1985.....	100	100	100
1986.....	100	100	100

1/ Domestic shipments plus company transfers.

2/ \* \* \* U.S. producers of CRT TV's, accounting for \* \* \* percent of reported total U.S. shipments of domestically produced CRT TV's in 1986, provided shipment data by market type.

3/ \* \* \* U.S. importers of CRT TV's from Japan, accounting for \* \* \* percent of reported imports of CRT TV's from Japan in 1986, provided shipment data by market type.

4/ \* \* \* U.S. importers of LCD TV's from Japan, accounting for \* \* \* percent of reported imports of LCD TV's from Japan in 1986, provided shipment data by market type.

5/ Multi-outlet and single-outlet discount stores.

6/ Multi-outlet and single-outlet department stores.

7/ Less than 0.5 percent.

8/ The majority of these shipments reported by U.S. producers were company transfers to a related sales/marketing division.

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

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

Luskin's, a discount consumer electronics and appliances chain, advertises direct view CRT TV's ranging in screen size from 5 to 26 inches, CRT projection TV's, and a 2-inch Sony Watchman bent-neck CRT TV together with VCR equipment. 1/ Dart Drug, a discount consumer drug store chain, advertises 5- and 19-inch CRT TV's together with telephones, appliances, and school/office supplies. 2/

Radio Shack's 1987 catalog pictures its "PocketVision" 2.6-inch color LCD TV on the same page as its 5-1/2 inch color portable CRT TV as well as various Radio Shack brand 13-inch CRT TV's. The adjacent page displays two other LCD TV's, a 4-inch CRT TV similar to Sony's Watchman, and two portable 5 inch CRT TV's. 3/

A recent W. Bell & Co. sale catalog advertises a Casio 2-inch color LCD TV together with a Sony 2-inch monochrome Watchman CRT TV, each for \$89.50. Various other CRT TV's, ranging in size from 4-1/2 inches to 27 inches, are pictured on the same page of the sale catalog. 4/

There are other retailers and catalog houses, however, that only advertise CRT TV's or LCD TV's, but not both. For example, a J & R Music World newspaper ad shows various types of stereo equipment, telephones, computers, typewriters, watches, and an LCD TV by Casio (the only television appearing in the advertisement). 5/

#### Apparent U.S. consumption

Total apparent U.S. consumption of CRT TV's increased by 13 percent during 1984-86 (table 3 and fig. 2). During January-June 1987 apparent consumption of CRT TV's decreased 1 percent from the corresponding period of 1986. Total apparent U.S. consumption of LCD TV's (imports from Japan) increased nearly twenty-four fold during 1984-86. Such consumption fell over \* \* \* percent during January-June 1987 compared with the corresponding period of 1986. Total apparent U.S. consumption of CRT and LCD TV's increased 16 percent during 1984-86. Combined apparent consumption of CRT and LCD TV's decreased \* \* \* percent during January-June 1987 compared with the corresponding period in 1986.

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1/ Luskin's Superstores insert in the Washington Post, Oct. 11, 1987.

2/ Dart Drug insert in the Washington Post, Oct. 11, 1987, p. 13.

3/ 1987 Radio Shack catalog, pp. 7 and 8. \* \* \*

4/ W. Bell & Co., "1988 Catalog Introduction Sale," p. 45.

5/ New York Times, Oct. 18, 1987, section 2, p. 44.

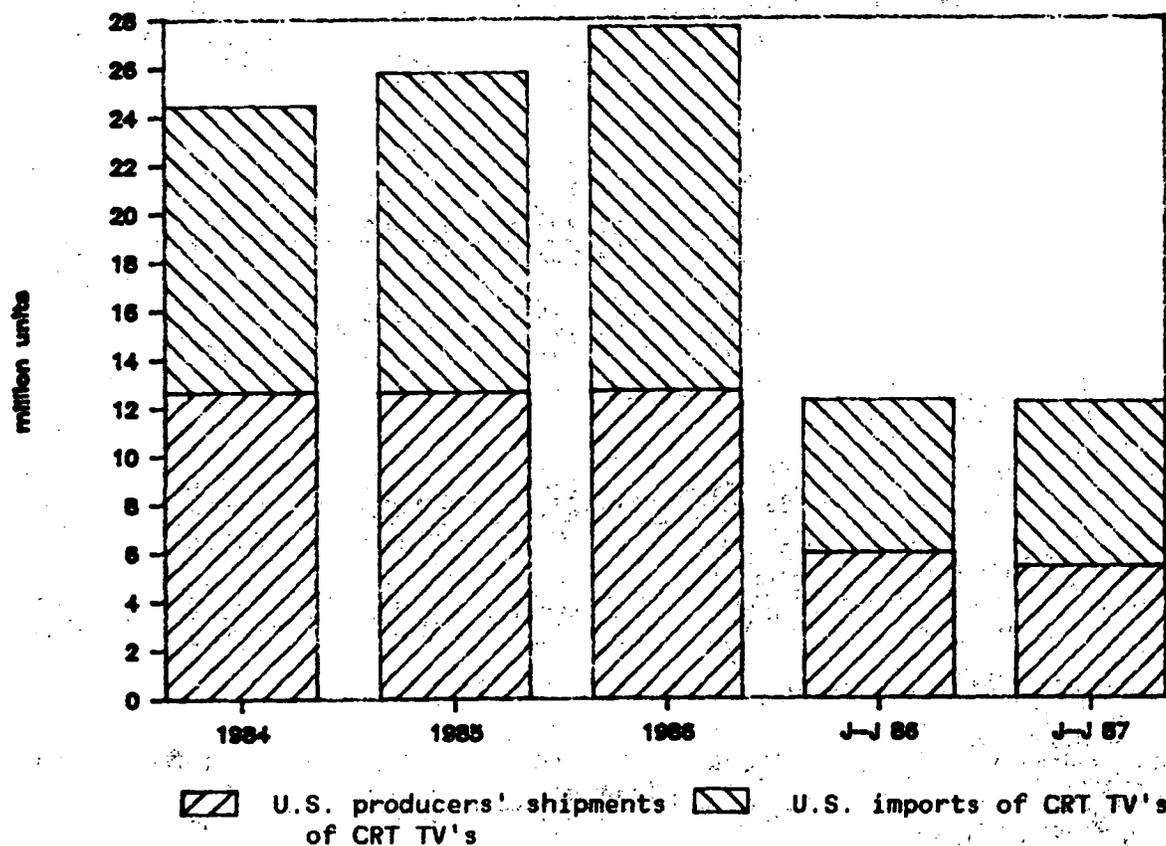
Table 3  
Television receivers: U.S. producers' total U.S. shipments, imports for consumption, and apparent U.S. consumption, 1/ by types, 1984-86, January-June 1986, and January-June 1987

Item	(1,000 units)				
	1984	1985	1986	January-June— 1986	1987
U.S. producers' total					
U.S. shipments:					
CRT TV's.....	12,653	12,611	12,685	5,965	5,385
LCD TV's.....	0	0	0	0	0
Total.....	12,653	12,611	12,685	5,965	5,385
Imports for consumption:					
CRT TV's.....	11,785	13,151	14,938	6,298	6,802
LCD TV's.....	32	320	771	***	***
Total.....	11,817	13,471	15,710	***	***
Apparent U.S. consumption:					
CRT TV's.....	24,438	25,762	27,624	12,263	12,187
LCD TV's.....	32	320	771	***	***
Total.....	24,470	26,082	28,395	***	***

1/ Domestic shipments plus company transfers. USITC staff estimates that the \* \* \* U.S. producers whose shipment data are included in this report accounted for more than 95 percent of total U.S. shipments of CRT TV's in 1986; and that the \* \* \* U.S. importers of LCD TV's responding to the Commission's importers' questionnaire account for approximately \* \* \* percent of the LCD TV's imported from Japan in 1986. Due to less than full coverage, total U.S. shipments, U.S. imports of LCD TV's, and, therefore, apparent U.S. consumption are understated. Apparent U.S. consumption calculated on the basis of value is presented in the section of the report entitled "Market penetration."

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

Figure 2  
 Apparent U.S. consumption of CRT TV's, 1984-86, January-June 1986, and  
 January-June 1987



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

#### Condition of the Industry in Japan

In its consideration of the possible effects of modifying T.D. 76-71 so as to remove LCD TV's from its scope, the Commission may wish to consider such factors as the capacity of producers in the exporting country to generate exports to the United States and the potential for Japanese producers to shift production from other products subject to antidumping or countervailing duty orders to production of LCD TV's. These issues are addressed below.

The producers in Japan

The following tabulation presents selected data on television receivers (in 1,000 units) published by Japan's Ministry of International Trade and Industry (MITI) and supplied by the U.S. Embassy, Tokyo:

Item	1984	1985	1986	January-June—	
				1986	1987
Production:					
CRT TV's: <u>1/</u>					
Monochrome.....	1,036	847	904	421	244
Color.....	14,961	17,897	13,809	6,588	6,870
Total.....	15,997	18,744	14,713	7,009	7,114
LCD TV's (monochrome and color).....					
.....	2/	2/	1,853	862	750
Total TV's.....	15,997	18,744	16,566	7,871	7,864
Producer shipments: <u>3/</u>					
CRT TV's: <u>1/</u>					
Monochrome.....	1,018	897	933	442	279
Color.....	14,635	17,815	13,822	6,364	6,903
Total.....	15,653	18,712	14,755	6,806	7,181
LCD TV's (monochrome and color).....					
.....	2/	2/	1,777	816	758
Total TV's.....	15,653	18,712	16,532	7,622	7,939
End-of-period inventories:					
CRT TV's: <u>1/</u>					
Monochrome.....	76	70	39	47	46
Color.....	938	1,052	1,051	1,235	995
Total.....	1,014	1,122	1,090	1,283	1,041
LCD TV's (monochrome and color).....					
.....	2/	2/	98	57	90
Total TV's.....	1,014	1,122	1,188	1,340	1,131

1/ Includes CRT TV assemblies (kits) and complete CRT TV's.

2/ Not available.

3/ Includes home country shipments and total exports.

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

Producers of CRT TV's.—Fourteen firms are known to produce CRT TV's in Japan. Nine of these firms also produce CRT TV's in the United States. In addition to the producers that have established television assembly plants in the United States, Fujitsu General, Ltd.; Funai Electric Co., Ltd.; Nippon Columbia Co., Ltd.; Pioneer Electronic Corp.; and Shin-Shirasuna Electric Corp. also produce CRT TV's in Japan.

In addition to facilities for the production of CRT TV's in the United States and Japan, the parent companies of seven of the Japanese-owned U.S. producers also have affiliated companies in other countries. Some of the affiliated companies are located in Canada, Korea, Mexico, Spain, Singapore, Taiwan, the United Kingdom, and West Germany.

Producers of LCD TV's.—According to MITI, there are seven producers of LCD TV's in Japan—Casio Computer Co., Ltd.; Citizen Watch Co., Ltd.; Hitachi, Ltd.; Matsushita Electric Industrial Co.; Seiko Epson Corp.; Sharp Corp.; and Toshiba Corp. Of these seven producers of LCD TV's in Japan, four produce/assemble CRT TV's in Japan and the United States.

The Wall Street Journal <sup>1/</sup> described the LCD TV industry in Japan as follows:

"So far, the digital-watch makers have dominated the (LCD TV) market, but now more electronics companies are stepping in. Matsushita Electric Industrial Co. began selling color-LCD miniature sets last autumn and has been the only consumer-electronics maker to have color pocket television on the market. But Hitachi Ltd. and Sharp Corp. said late last month that they would sell competitive versions by the end of the year. Industry analysts say that the entry of the electronics companies has quickened the pace of research into new and better screens, and changed market dynamics.

Some companies enjoyed brisk sales of black-and-white models in the U.S. until last year. But the soaring yen has deflated that market. In addition, U.S. anti-dumping tariffs on color televisions include LCD sets as well as conventional ones.

As a result, Japanese makers mostly are ignoring the overseas market until they can bring prices down. Meanwhile, they are pressing ahead on technology.

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<sup>1/</sup> Elisabeth Rubinfien, "Japanese Firms Build Consumer Interest by Flooding the Market with Tiny TV's," Wall Street Journal, Oct. 8, 1987, p. 22.

The development of the tiny-television market has followed a pattern typical of Japanese industry. Companies set their sights on an advanced technology that has great commercial potential, such as LCD technology. On their way to achieving the lucrative reward of fully developing the technology, they bring out simpler consumer products, such as computer displays and digital watches, thereby stimulating public interest, establishing market share and generating cash to help offset developing costs."

During 1984 and 1985 there were three producers of LCD TV's in Japan; \* \* \*. In 1986 a fourth company \* \* \* began producing LCD TV's. During July-December 1987 and calendar year 1988, four more companies are planning to begin production of LCD TV's \* \* \*. Available information on Japanese producers of LCD TV's \* \* \* is presented in table 4. 1/

#### The potential for "product shifting"

In examining the possible effects of modifying an existing dumping order the Commission may wish to consider, among other relevant factors, the potential for product shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigations under section 701 or 731 or to final orders under section 736, are also used to produce the merchandise under investigation.

As noted above, in addition to complete television receivers, the dumping order includes TV assemblies which, while not in finished form, are capable of receiving a broadcast television signal (contain a chassis/tuner) and producing a video image (contain a picture tube/display device). Currently, there are pending antidumping investigations concerning imports of color picture tubes from Canada, Japan, the Republic of Korea, and Singapore. 2/ In those investigations, Commerce preliminarily excluded imports from Japan of color picture tubes imported as part of color television receiver kits or TV assemblies, provided for in item 684.96 of the TSUS. The production of LCD panels requires a much cleaner environment than the production of picture tubes. In addition, the differences in the physical characteristics of LCD panels versus picture tubes requires significantly different material handling machinery. Due to these factors, it would be extremely difficult, if not impossible, to produce an LCD TV in a production facility designed to produce CRT TV's, and vice versa.

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1/ \* \* \*

2/ Investigations Nos. 731-TA-367 through 370 (Final).

Table 4

Television receivers: Japanese producers' <sup>1/</sup> production, capacity, capacity utilization, domestic shipments, exports, and inventories, by types of TV, 1984-86, January-June 1986, and January-June 1987, and projected data for July-December 1987 and full year 1988

Item	Actual—					Projected—	
	1984	1985	1986	January-June—		July-December 1987	Full year 1988
				1986	1987		
<b>Production:</b>							
CRT TV's (1,000 units)..	8,698	10,857	***	***	***	4,207	8,072
LCD TV's (1,000 units)..	90	778	***	***	***	668	1,724
Total (1,000 units)...	8,788	11,635	9,322	4,627	4,619	4,875	9,796
Percentage change.....	-	+32	-20	-	<u>2/</u>	-	-
<b>Capacity:</b>							
CRT TV's (1,000 units)..	9,215	9,996	***	***	***	4,437	8,660
LCD TV's (1,000 units)..	120	910	***	***	***	912	2,218
Total (1,000 units)...	9,335	10,906	10,755	5,196	5,368	5,349	10,878
Percentage change.....	-	+17	-1	-	+3	-	-
<b>Capacity utilization:</b>							
CRT TV's (percent).....	94	109	***	***	***	95	93
LCD TV's (percent).....	75	85	***	***	***	73	78
Total (percent).....	94	107	87	89	86	91	90
<b>Domestic shipments:</b>							
CRT TV's (1,000 units)..	***	***	5,821	***	2,843	3,437	6,482
LCD TV's (1,000 units)...	***	***	460	***	375	481	1,174
Total (1,000 units)...	5,339	5,510	6,281	2,833	3,218	3,918	7,656
Percentage change.....	-	+3	+14	-	+14	-	-
<b>Exports to—</b>							
<b>United States:</b>							
CRT TV's (1,000 units)	***	***	***	***	***	***	***
LCD TV's (1,000 units)	***	***	***	***	***	***	***
Total (1,000 units).	***	1,123	1,285	719	***	***	***
Percentage change...	-	***	+14	-	***	-	-
<b>All other countries: <sup>3/</sup></b>							
CRT TV's (1,000 units)	***	***	***	***	***	***	***
LCD TV's (1,000 units)	***	***	***	***	***	***	***
Total (1,000 units).	***	4,736	1,857	920	***	***	***
Percentage change...	-	***	-61	-	***	-	-
<b>Yearend inventories:</b>							
CRT TV's (1,000 units)..	***	***	***	***	***	-	-
LCD TV's (1,000 units)..	***	***	***	***	***	-	-
Total (1,000 units)...	410	539	411	719	575	-	-
Percentage change.....	-	+32	-24	-	-20	-	-

<sup>1/</sup> \* \* \*.

<sup>2/</sup> Decreased less than 0.5 percent.

<sup>3/</sup> \* \* \*.

Source: Compiled from data provided by counsel for petitioners.

## The U.S. Industry

U.S. producers

Producers of CRT TV's.—The number of firms producing/assembling CRT television receivers in the United States increased from 16 in 1984 to 20 in 1987. Of the 20 producers of television receivers in the United States, 4 are U.S.-owned, 1 is Dutch-controlled, 1 is Hong Kong-owned, 10 are Japanese-owned, 2 are Taiwan-owned, and 2 are Korean-owned. A list of current U.S. producers, their percent of total U.S. shipments of complete CRT TV's in 1986, screen sizes produced, and the location(s) of their plants is presented in table 5.

Domestic producers of color television receivers vary considerably in the size and complexity of their operations. Producers can generally be classified in one of two groups: those with picture-tube-production facilities and those without such production capability.

General Electric Co./RCA Corp.; 1/ North American Philips Corp.; Sony Corp. of America; Toshiba America, Inc.; 2/ and Zenith Electronics Corp., all among the largest domestic producers, produce color picture tubes in U.S. facilities. The remaining U.S. producers do not have this capability and may purchase their requirements from one of these firms or may import or purchase imported color picture tubes. 3/

In an effort to lower costs, U.S.-owned producers have established foreign plants, principally in Mexico, Singapore, and Taiwan, where labor-intensive subassemblies and assemblies are made or assembled by low-wage labor from components exported to the foreign plant by the U.S. producer. After the labor-intensive work is completed in the foreign plant, these subassemblies and assemblies, or complete television receivers, are imported by the U.S. producer (oftentimes using the provisions of TSUS item 807.00).

In addition to a producers' questionnaire, each U.S. producer of television receivers was sent a potential producers' questionnaire. The questionnaire requested specific information about current production of flat-panel displays and any future plans to produce flat-panel display TV's, including LCD TV's.

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1/ RCA Corp. was acquired by General Electric in June 1986. In June 1987, General Electric closed its facilities producing color picture tubes in Syracuse, NY. It still, however, operates the former RCA establishments producing color picture tubes in Marion, IN, and Scranton, PA.

2/ In November 1986, Toshiba-Westinghouse Electronics, Inc., began producing color picture tubes in Horseheads, NY.

3/ For additional information concerning color picture tubes, see section of this report entitled "Major input factors in television assembly" and Color Picture Tubes from Canada, Japan, the Republic of Korea, and Singapore: Determinations of the Commission in Investigations Nos. 731-TA-367 Through 370 (Preliminary) . . . , USITC Publication 1937, January 1987.

Table 5

Television receivers: U.S. producers of CRT TV's, their shares of reported total U.S. shipments, 1/ screen sizes produced, and plant location(s), by firms, 1986

Firm	Share of reported total U.S. shipments of complete CRT TV's in 1986	Range of screen sizes produced <u>2</u> /	Plant location(s)
		—inches—	
America Kotobuki Electronics Industries, Inc.....	***	***	Vancouver, WA
Curtis Mathes Manufacturing Co..	***	***	Dallas, TX
General Electric/RCA Consumer Electronics.....	***	***	Bloomington, IN Portsmouth, VA
Gold Star of America, Inc.....	***	***	Huntsville, AL
Hitachi Consumer Products of America, Inc.....	***	***	Compton, CA
US JVC Corp.....	***	***	Elmwood Park, NJ
Matsushita Industrial Co.....	***	***	Franklin Park, IL
Mitsubishi Consumer Electronics America, Inc.....	***	***	Santa Ana, CA Braselton, GA
NEC Home Electronics (USA), Inc.	***	***	McDonough, GA
North American Philips Corp.....	***	***	Knoxville, TN
Orion Electric (America) Inc....	***	***	Princeton, IN
Sampo Corp. of America.....	***	***	Norcross, GA
Samsung International, Inc.....	***	***	Ledgewood, NJ
Sanyo Manufacturing Corp.....	***	***	Forrest City, AR
Sharp Electronics Corp.....	***	***	Memphis, TN
Sony Manufacturing Co. of America.....	***	***	San Diego, CA
Tatung Co. of America, Inc.....	***	***	Long Beach, CA
Toshiba America, Inc.....	***	***	Lebanon, TN
Wells-Gardner Electronics Corp..	***	***	Chicago, IL
Zenith Electronics Corp.....	***	***	Springfield, MO

1/ Domestic shipments plus company transfers of U.S.-produced/assembled television receivers. USITC staff estimates that the \* \* \* U.S. producers whose shipment data are included in this report accounted for more than 95 percent of total U.S. shipments of CRT TV's in 1986. Due to less than full coverage, total U.S. shipments are understated and, therefore, the share of total U.S. shipments accounted for by each individual firm may be overstated.

2/ DV means direct-view CRT TV and PTV means projection TV.

Note.—Because of rounding, percentages may not add to 100 percent.

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

America Kotobuki Electronics Industries, Inc. (Kotobuki), began assembling color television receivers in its Vancouver, WA, plant in \* \* \*. 1/

Curtis Mathes Manufacturing Co. (Curtis Mathes), Athens, TX, is one of the smallest U.S.-owned producers of television receivers. 2/ Curtis Mathes \* \* \*.

GE purchased RCA Corp. in June 1986. 3/ In July 1987 Thomson of France agreed to acquire GE's consumer electronics business. The transaction is expected to be completed by year's end. 4/ GE has a production facility located in Indianapolis, IN. GE also produces color television subassemblies in \* \* \*. In its response to the potential producers' questionnaire, GE indicated that \* \* \*.

Gold Star of America, Inc. (Gold Star), is a wholly owned subsidiary of Gold Star Co., Ltd., Seoul, Korea. Gold Star indicates that \* \* \*.

Hitachi Consumer Products of America, Inc. (Hitachi), a wholly owned subsidiary of Hitachi, Ltd., Japan, produces television receivers at its Anaheim, CA, plant from \* \* \*. Hitachi Sales Corporation of America, a related U.S. firm, distributes most of Hitachi's U.S. output. \* \* \*. In its response to the potential producers' questionnaire, Hitachi indicated that \* \* \*.

U.S. JVC Corp. (JVC), located in Elmwood Park, NJ, is \* \* \*. In its response to the potential producers' questionnaire, JVC indicated that \* \* \*.

Matsushita Industrial Company (MIC), a wholly owned subsidiary of Matsushita Electric Corp. of America, produces color television receivers in Franklin Park, IL. Panasonic Co. and Quasar Co. are both divisions of Matsushita Electric Corp. of America. MIC indicated in its response to the potential producers' questionnaire that \* \* \*.

Mitsubishi Consumer Electronics America, Inc. (Mitsubishi), a subsidiary of Mitsubishi Electric Corp. (Tokyo, Japan), produces color television receivers at its plants in Santa Ana, CA, and Braselton, GA, using \* \* \*. A related company, Mitsubishi Electric Sales America, Inc., \* \* \*.

NEC Home Electronics (USA), Inc. (NEC), \* \* \*. NEC, a wholly owned subsidiary of NEC America, Inc., assembles CRT TV's from \* \* \*. In its response to the potential producers' questionnaire, NEC indicated that \* \* \*.

North American Philips Consumer Electronics Corp. (N.A.P.), which is Dutch-controlled, operates production facilities in Greenville, TN. The firm also owns and operates a facility in \* \* \*. N.A.P. produces GTE Sylvania and Magnavox label TV's. In its response to the potential producers' questionnaire, N.A.P. indicated that \* \* \*.

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1/ \* \* \*.

2/ \* \* \*.

3/ \* \* \*.

4/ Television Digest, Sept. 21, 1987, p. 11.

Orion Electric America, Inc. (Orion), \* \* \*. In its response to the potential producers' questionnaire, Orion indicated that \* \* \*.

Sampo Corp. of America (Sampo) assembles color television receivers at its plant in Norcross, GA. Sampo is a wholly-owned subsidiary of Sampo Corp. (Taiwan). As noted above, Sampo \* \* \*. In its response to the potential producers' questionnaire, Sampo indicated that \* \* \*.

Samsung International, Inc. (Samsung), assembles television receivers at its plant in Ledgewood, NJ. Samsung \* \* \*.

Sanyo Manufacturing Corp. (Sanyo) is \* \* \*. Sanyo is a subsidiary of Sanyo Electric Co. (Japan) and Sanyo Electric Trading Co. (Japan). Sanyo produces television receivers at its Forrest City, AR, facility. \* \* \*. 1/ Sanyo indicated in its response to the potential producers' questionnaire that \* \* \*.

Sharp Manufacturing Co. of America (Sharp), a division of Sharp Electronics Corp., produces television receivers in Memphis, TN. Sharp \* \* \*. In its response to the potential producers' questionnaire, Sharp indicated that \* \* \*.

Sony Manufacturing Co. of America (Sony) is a division of Sony Corp. of America, which in turn is a wholly owned subsidiary of Sony Kabushiki Kaisha (Japan). 2/ As noted earlier, Sony Kabushiki Kaisha has been removed from Commerce's dumping finding. Sony produces color television receivers in San Diego, CA \* \* \*. In its response to the potential producers' questionnaire, Sony indicated that \* \* \*.

Tatung Co. of America, Inc. (Tatung), \* \* \* by Tatung Co. (Taiwan). Tatung produces color television receivers in Long Beach, CA, using \* \* \*. In its response to the potential producers' questionnaire, Tatung indicated that \* \* \*.

Toshiba America, Inc. (Toshiba), produces color television receivers in Lebanon, TN. Toshiba is a wholly owned subsidiary of Toshiba Corporation (Japan), which also operates a production facility in Singapore. Toshiba \* \* \*. In its response to the potential producers' questionnaire, Toshiba indicated that \* \* \*.

Wells-Gardner Electronics Corp. (Wells-Gardner) has an agreement with Teknika Electronics Corp. (Teknika), a U.S.-based subsidiary of the General Corp. of Japan \* \* \*.

Zenith Electronics Corp. (Zenith) produces \* \* \* television receivers at its plant in Springfield, MO. \* \* \*. Zenith indicated in its response to the potential producers' questionnaire that \* \* \*.

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1/ Telephone interview with \* \* \*, Oct. 2, 1987.

2/ \* \* \*.

Producers of flat-panel displays.—Currently there are no U.S. producers of LCD TV's; there are, however, several U.S. producers of flat-panel displays for military and commercial applications, including computer terminals. Some of these displays could be used in television receivers. In addition to the 20 producers of CRT TV's, the Commission sent potential producers' questionnaires to 14 U.S. producers of flat-panel displays. Of these 14 flat-panel display producers, 7 were believed to produce an LCD panel. \* \* \* of the flat-panel display producers responding to the Commission's potential producers' questionnaire indicated that they wish to produce a flat-panel TV or supply television producers with a flat-panel for incorporating into a television.

Of the 7 producers of flat-panel displays that responded to the Commission's potential producers' questionnaire, 1 responded that the modification or revocation of the portion of the outstanding antidumping order concerning LCD TV's would have an adverse effect on their operations, and 4 responded that the modification or revocation of the portion of the outstanding antidumping order concerning LCD TV's would have no effect on their operations. The remaining 2 producers did not specifically address how the modification or revocation of the dumping order would affect their operations. The following tabulation presents the names of the U.S. producers of flat-panel displays, the type of flat-panel display that they produce, and their plant location:

<u>Firm</u>	<u>Type of flat panel display 1/</u>	<u>Location</u>
Alphasil, Inc.	***	***
Cherry Corp.	***	***
General Electric	***	***
International Business Machines, Inc.	***	***
LC Systems	***	***
Lucitron, Inc.	***	***
Magnavox Government Electronics Co.	***	***
Ovonic Imaging	***	***
PanelVision Division, Litton Systems, Inc.	***	***
Photonics Technology	***	***
Planar Systems, Inc.	***	***
Plasma Graphics	***	***
Sigmatron Nova	***	***
Tektronix Corp.	***	***

1/ For a discussion of the different types of flat-panel display technologies, see section of report entitled "Description and uses."

2/ Company supports the assessment of duties. However, only \* \* \* responded that the modification or revocation of the portion of the outstanding antidumping order concerning LCD TV's would have an effect on its operations.

3/ \* \* \*.

4/ \* \* \*.

5/ Company recently permanently shut down its operations.

6/ \* \* \*.

7/ Company terminated its operations in 1985.

\* \* \* produces EL displays ranging in size from \* \* \* inches to \* \* \* inches. \* \* \* sells its products to the commercial and military markets. In its questionnaire response it indicated that it does not plan to produce flat-panel display TV's because "[c]ompetitive pressures from Japan suggest that the Japanese manufacturers are willing to lose large amounts of money to dominate the consumer TV market," and that it "cannot endure these losses." In responding to the question regarding what effect the modification or revocation of the portion of the outstanding antidumping order concerning LCD TV's would have on its operations, \* \* \* indicated that LCD technology being developed for TV receivers will eventually be used by the Japanese to compete against U.S. producers of flat-panel displays and that "[a]ny delays in the Japanese ability to develop that market is to [their] benefit competitively."

\* \* \* produces LCD panels for use in \* \* \*. \* \* \* has no plans to produce LCD TV's and thus feels its operations would not be affected by the modification or revocation of the portion of the outstanding antidumping order concerning LCD TV's.

\* \* \* recently shut down its operations and is expected to liquidate its equipment. \* \* \* indicated that "the Japanese drove us out of the business." <sup>1/</sup> \* \* \* said that it was unlikely that \* \* \* would have ever gotten into the flat-panel display television market and that \* \* \* primarily served the industrial and military markets.

\* \* \* produces active matrix LCD panels; it has no plans, however, to enter the television market. \* \* \*. In its response to the potential producers' questionnaire, \* \* \* indicated that the modification or revocation of the portion of the outstanding antidumping order concerning LCD TV's would have no effect on its operations. It did, however, indicate that it believes one or more Japanese firms selling LCD TV's may be infringing on patents for liquid crystal displays \* \* \*.

\* \* \* began producing EL displays in \* \* \*. It noted in its questionnaire response that although it has no plans to begin producing flat-panel display TV's, it plans to sell its displays to producers of television receivers. Furthermore, it notes that its facilities could be used for production of television receivers. \* \* \* indicated that its operations would not be affected by the modification or revocation of the portion of the outstanding antidumping order concerning LCD TV's.

\* \* \* is in the final stages of development of large (\* \* \*) \* \* \* flat-panel television and computer displays. In about 2 years, it plans to start production of a \* \* \* flat-panel display. \* \* \* indicated in its questionnaire response that it hopes to start producing a flat-panel display TV using its \* \* \*-inch diagonal gas discharge flat-panel display. It currently produces a \* \* \*-inch diagonal flat-panel display. The display, which is only \* \* \* inches thick, is capable of displaying off-the-air television and computer-generated signals. Since May 1978, \* \* \* has spent more than \$\* \* \* million on research and development of a flat-panel display

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<sup>1/</sup> Telephone interview with \* \* \* on Nov. 17, 1987. As noted above, \* \* \*.

for use in the production of flat-panel display TV's. It included an internal spreadsheet summary of its planned operations through 1993. It is currently trying to raise additional funding to start pilot production. \* \* \*, however, indicated having trouble in raising investment capital because of the perception that the Japanese "own" the display business. It adds that the Japanese have made impressive progress on liquid crystal displays and that "if they can take the results of their excellent laboratory and engineering work and reduce prices so that U.S. companies cannot compete in the marketplace, we will become totally dependent on them for advanced, and eventually, even commodity displays." \* \* \* indicated that its operations would not be affected by the modification or revocation of the portion of the outstanding antidumping order concerning LCD TV's.

\* \* \* currently produces flat-panel display monitors ("video-rate" monitors) ranging in screen size from \* \* \* inches to \* \* \* inches. It specializes in gas plasma displays but also produces EL and LCD displays. \* \* \* indicated in its questionnaire response that it plans to produce flat-panel display TV's in 1990 or 1991 and has invested approximately \$\* \* \* million a year during the period under investigation in the development of such products. It did not, however, submit any details or documentation on any of its equipment purchases, capital investment, marketing plans, or cost studies relating to its efforts to produce flat-panel TV's. \* \* \* remarked that it is experiencing serious competition from flat-panel displays (LCD and plasma) from Japan, and alleged that the Japanese are dumping all kinds of flat-panel displays, not just LCD. \* \* \* did not indicate what effect, if any, the modification or revocation of the portion of the outstanding antidumping order concerning LCD TV's would have on its operations.

\* \* \* first began selling LCD panels in \* \* \* and it opened a new production facility to manufacture active matrix LCD panels in \* \* \*. To date the company has invested more than \$\* \* \* million in its operations. It currently markets its LCD panels in the high end industrial, avionics, and military markets. Its panels can be used for both data presentation and video (television) display. \* \* \* reported in its potential producers' questionnaire that it is formulating vertical integration and expansion of its product lines to include LCD TV's and/or displays therefor. It supplied the Commission with its formal confidential business plan which specifically addresses its plans to \* \* \*. It reported that "an accelerated introduction of [consumer] flat-panel display TV's by \* \* \* would only be possible if predatory foreign pricing were prevented." In its business plan, \* \* \* indicated that large screen (14 inches and larger) LCD TV's are "highly feasible within several years." <sup>1/</sup> \* \* \* indicated that if the portion of the outstanding antidumping order concerning LCD TV's were modified or revoked it "would probably have to abandon business and marketing activities focused on developing the lower cost end of the market." It added that "[a]ggressive Japanese [will] enter into these markets and they will severely impede [its] efforts to attract the additional investment capital necessary for expanded production and manufacturing cost reduction."

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<sup>1/</sup> \* \* \* Business Plan, \* \* \*, p. 18.

During the course of the investigation, the companies expressing interest in the investigation, and, in particular, in producing a flat-panel TV (\* \* \*) were all invited to participate in the investigation either through participating in the Commission's hearing or providing a written submission. Each of these companies indicated that money was an issue in participating in the hearing; in fact, \* \* \* recently had to lay off its entire work force due to lack of funds.

It appears that the development of a flat-panel display TV industry in the United States will be similar to the development of the LCD TV industry in Japan in that producers of products other than CRT TV's are the first companies to begin producing LCD TV's. In Japan, for example, calculator and watch producers such as Casio, Citizen, and Seiko were the first companies to produce LCD TV's. In the United States the producers of flat-panel displays for industrial and military uses are the ones who wish to produce LCD TV's and other flat-panel TV's. It has been suggested, however, that the Japanese producers have followed a different path to the development of flat-panel technology 1/ than have the U.S. producers. As noted in the section of the report entitled "The producers in Japan," the Japanese have developed high volume, highly visible consumer products, such as digital watches, which help to generate funds to finance research and development of other products that incorporate flat-panels. Companies in the United States such as \* \* \* have indicated that most U.S. producers of flat-panel displays have chosen to pursue the lower volume, high-end industrial and military markets. 2/ These companies feel that although they are able to demand a higher price for their products, they are lower volume and less visible products. 3/ As a result, these U.S. producers of flat-panel displays feel that they have less production experience than do the Japanese, who have chosen to produce high-volume consumer products and thus move down the learning curve in production technology more quickly than U.S. producers. In addition, there are economies of scale associated with higher volume production. Furthermore, because the Japanese are producing a more visible product, there is a feeling among venture capitalists that the Japanese "own" the flat-panel display industry. Several companies noted in their responses to the Commission's potential producers' questionnaire that as a result of this perception, they have had difficulty in securing additional venture capital to expand their operations and move into consumer products such as televisions. \* \* \* remarked that \* \* \* this is part of the Japanese strategy to take over the entire flat-panel display industry: consumer television, industrial, and military.

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1/ LCD, EL, and gas discharge. For a discussion of these technologies, see section of the report entitled "Description and uses."

2/ Based on personal interviews with \* \* \*.

3/ Ibid. Each of the individuals interviewed alleged that the Japanese are dumping LCD TV's in the U.S. market because they feel that the Japanese cannot be covering their manufacturing costs for these products. Their allegations were based on the known manufacturing costs of the flat-panel itself.

U.S. importers

There are several hundred importers of televisions located in the United States. Questionnaires were sent to approximately 80 firms listed in the U.S. Customs Service's Net Import File (CNIF). According to responses to Commission questionnaires and information provided by the U.S. Customs Service, 30 to 35 firms account for more than 80 percent of all imports. These firms can be divided into three groups: (1) U.S. producers of television receivers, (2) U.S. sales/marketing divisions of foreign and domestic television producers, and (3) private-label retailers.

Of the 20 U.S. producers of television receivers and their related companies, \* \* \* import CRT TV assemblies from Japan, \* \* \* import CRT TV assemblies from other countries, \* \* \* import complete CRT TV's from Japan, and \* \* \* import complete CRT TV's from other countries. \* \* \* reported importing LCD TV's from Japan. 1/

Condition of the U.S. Industry 2/U.S. production, capacity, and capacity utilization

The capacity of U.S. producers to produce/assemble CRT TV's increased in every period since 1984, increasing a total of 16 percent during 1984-86 (table 6 and fig. 3). Production of CRT TV's increased irregularly during 1984-86, climbing roughly 3 percent over the period. Capacity utilization fell in every period of the investigation, from 89 percent in 1984 to 66 percent during January-June 1987.

The majority of U.S.-produced CRT TV's during the period of investigation were produced from subassemblies (whether imported or domestically produced) (table 7).

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1/ For data concerning imports by U.S. producers of television receivers, see section of the report entitled "U.S. producers' imports."

2/ The following data may be understated due to less than full coverage of U.S. producers and importers. USITC staff estimates that the \* \* \* U.S. producers whose shipment data are included in this report account for more than 95 percent of total U.S. shipments of CRT TV's in 1986; and the \* \* \* U.S. importers of LCD TV's responding to the Commission's importers' questionnaire account for approximately \* \* \* percent of the LCD TV's imported from Japan in 1986. The petitioners' U.S. operations producing CRT TV's account for approximately \* \* \* percent of total U.S. shipments in 1986.

Table 6

Television receivers: U.S. production of CRT TV's, capacity, and capacity utilization, 1984-86, January-June 1986, and January-June 1987 1/

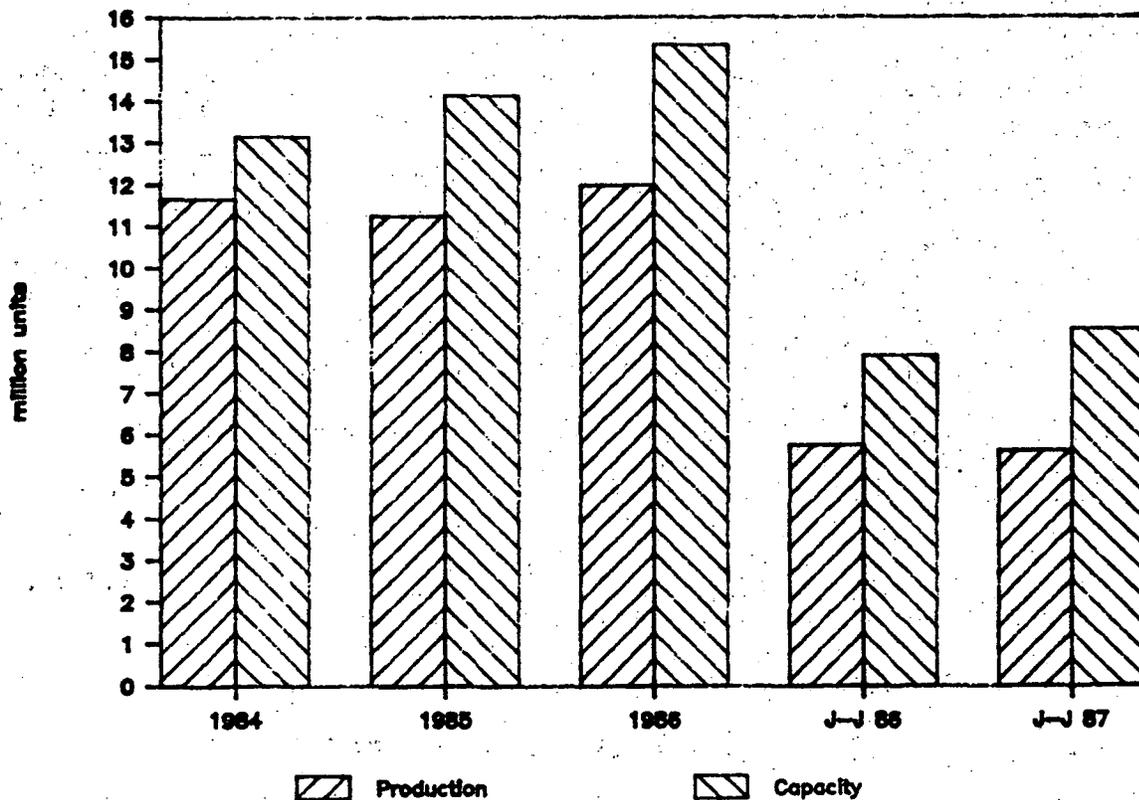
Item	1984	1985	1986	January-June—	
				1986	1987
<b>Production:</b>					
Quantity (1,000 units)..	11,646	11,227	11,964	5,731	5,598
Percentage change.....	-	-4	+7	-	-2
<b>Average capacity:</b>					
Quantity (1,000 units)..	13,123	14,102	15,205	7,868	8,507
Percentage change.....	-	+7	+8	-	+8
<b>Capacity utilization</b>					
(percent).....	89	80	79	73	66

1/ \* \* \* U.S. producers, accounting for \* \* \* percent of reported total U.S. shipments of CRT TV's in 1986, supplied data on production and capacity. Due to less than full coverage, production and capacity figures are understated.

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

Figure 3

U.S. production and capacity to produce CRT TV's, 1984-86, January-June 1986, and January-June 1987



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

Table 7

Television receivers: U.S. production 1/ of CRT TV's from subassemblies, 2/ from TV assemblies imported from Japan, 3/ and from TV assemblies imported from countries other than Japan, 1984-86, January-June 1986, and January-June 1987.

Item	1984	1985	1986	January-June—	
				1986	1987
Quantity (1,000 units)					
Production of CRT TV's from—					
Subassemblies.....	***	***	***	***	***
TV assemblies imported from Japan <u>4/</u> .....	***	***	***	***	***
TV assemblies imported from countries other than Japan <u>4/</u> .....	***	***	***	***	***
Total.....	11,646	11,227	11,964	5,731	5,598
Percent of total production					
Production of CRT TV's from—					
Subassemblies.....	***	***	***	***	***
TV assemblies imported from Japan.....	***	***	***	***	***
TV assemblies imported from countries other than Japan.....	***	***	***	***	***
Total.....	100	100	100	100	100

1/ \* \* \* U.S. producers, accounting for \* \* \* percent of reported total U.S. shipments of CRT TV's in 1986, supplied data on production. Due to less than full coverage, production figures are understated.

2/ Subassemblies, whether imported or domestically produced, are not capable of receiving a broadcast signal and producing a video image. These articles, if imported, are not covered by the dumping finding. Subassemblies were referred to as component parts and subassemblies in the Commission's producers' questionnaire.

3/ TV assemblies, while not in finished form, are capable of receiving a broadcast television signal and producing a video image. Included in this are "kits," which contain all the parts necessary for assembly into complete receivers. CRT TV assemblies imported from Japan are covered by the scope of the dumping order.

4/ See table 17 for imports of CRT TV assemblies as reported by the official statistics of the U.S. Department of Commerce. Such imports are significantly higher than reported U.S. production of CRT TV's from CRT TV assemblies.

5/ Less than 0.5 percent.

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

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

U.S. producers' shipments

The quantity of U.S. producers' total U.S. shipments of television receivers, as compiled from questionnaires, remained relatively constant at 12.6 million units per year during 1984-86 (table 8). The value and unit value of such shipments decreased 3 percent during the same period. During January-June 1987, the quantity of total U.S. shipments of television receivers fell 10 percent compared with the corresponding period of 1986. Although the value of total U.S. shipments fell during the interim periods, their unit value increased 3 percent.

According to the U.S. Department of Commerce, Bureau of the Census (Census), the quantity and value of shipments of U.S.-produced television receivers during 1984-86 were as follows:

<u>Item</u>	<u>1984 1/</u>	<u>1985</u>	<u>1986</u>
Quantity (1,000 units):			
Table and portable models.....	8,314	9,865	8,959
Console and consolette models.....	3,424	3,851	3,318
Total.....	11,738	13,716	12,277
Value (million dollars):			
Table and portable models.....	2,466	2,376	2,019
Console and consolette models.....	1,654	1,732	1,773
Total.....	4,120	4,108	3,792

1/ Data for 1984 include shipments of both monochrome and color television receivers (table and portable models). No shipments of monochrome models were reported after 1984.

The petitioner argues that LCD TV's do not compete with CRT TV's because CRT TV's have different physical characteristics such as size, weight, and screen sizes than do LCD TV's. 1/ According to the petitioner, the largest LCD TV currently being sold in the United States has a 3.5-inch screen, whereas the smallest CRT TV being produced in the United States has a screen size of 13 inches. 2/ In addition, the petitioner argues that U.S. producers are moving away from production of smaller screen size CRT TV's to larger screen sizes. 3/ Table 9 presents data on domestic shipments of television receivers, by type and screen size. During the period under investigation the percent of U.S. producers' total U.S. shipments of CRT TV's 14 inches and over in screen size steadily increased from \* \* \* to \* \* \* percent.

1/ Petition in investigation No. 751-TA-14, pp. 7 and 8.

2/ Petition in investigation No. 751-TA-14, pp. 7 and 8. According to producers' questionnaire responses, \* \* \* of \* \* \* CRT TV's produced in their U.S. establishments.

3/ Transcript, p. 6.

Table 8

Television receivers: U.S. producers' domestic shipments, company transfers, and total U.S. shipments of CRT TV's, 1984-86, January-June 1986, and January-June 1987 <sup>1/</sup>

Item	1984	1985	1986	January-June—	
				1986	1987
Domestic shipments:					
Quantity (1,000 units)...	9,111	8,757	8,964	4,017	3,658
Percentage change.....	-	-4	+2	-	-9
Value					
(million dollars)...	2,926	2,655	2,710	1,226	1,105
Percentage change.....	-	-9	+2	-	-10
Unit value.....	\$321	\$303	\$302	\$305	\$302
Percentage change.....	-	-6	<u>2/</u>	-	-1
Company transfers: <sup>3/</sup>					
Quantity (1,000 units)...	3,541	3,854	3,721	1,949	1,727
Percentage change.....	-	+9	-3	-	-11
Value					
(million dollars)...	1,120	1,199	1,230	619	611
Percentage change.....	-	+7	+3	-	-1
Unit value.....	\$316	\$311	\$331	\$317	\$354
Percentage change.....	-	-2	+6	-	+11
Total U.S. shipments:					
Quantity (1,000 units)...	12,653	12,611	12,685	5,965	5,385
Percentage change.....	-	<u>2/</u>	+1	-	-10
Value					
(million dollars)...	4,046	3,854	3,940	1,845	1,715
Percentage change.....	-	-5	+2	-	-7
Unit value.....	\$320	\$306	\$311	\$309	\$318
Percentage change.....	-	-4	+2	-	+3

<sup>1/</sup> Shipment figures include products produced from imported CRT TV subassemblies and CRT TV assemblies. CRT TV assemblies imported from Japan are covered by the scope of the dumping order and accounted for less than 0.5 percent of total reported production of CRT TV's in 1986 (table 7). USITC staff estimates that the \* \* \* U.S. producers who supplied the Commission with shipment data accounted for more than 95 percent of total U.S. shipments of CRT TV's in 1986. Due to less than full coverage, shipment figures are understated.

<sup>2/</sup> Decreased less than 0.5 percent.

<sup>3/</sup> U.S. producers of television receivers used various methods to value their company transfers, including cost, cost plus, and market values.

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

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

Table 9  
Television receivers: Total U.S. shipments 1/ of U.S.-produced and imported TV's, by types and screen sizes, 1984-86, January-June 1986, and January-June 1987

Screen size and period	(Percent of total U.S. shipments)		
	CRT TV's— U.S. producers' total U.S. shipments 2/	Total U.S. shipments of TV's imported from Japan 3/	LCD TV's— Total U.S. shipments of TV's imported from Japan 4/
<b>Less than 4 inches:</b>			
1984.....	***	***	100
1985.....	***	***	100
1986.....	***	***	100
January-June—			
1986.....	***	***	100
1987.....	***	***	100
<b>4 inches:</b>			
1984.....	***	***	0
1985.....	***	***	0
1986.....	***	***	0
January-June—			
1986.....	***	***	0
1987.....	***	***	0
<b>5 inches:</b>			
1984.....	***	***	0
1985.....	***	***	0
1986.....	***	***	0
January-June—			
1986.....	***	***	0
1987.....	***	***	0
<b>6 to 8 inches:</b>			
1984.....	***	***	0
1985.....	***	***	0
1986.....	***	***	0
January-June—			
1986.....	***	***	0
1987.....	***	***	0
<b>9 to 12 inches:</b>			
1984.....	***	***	0
1985.....	***	***	0
1986.....	***	***	0
January-June—			
1986.....	***	***	0
1987.....	***	***	0
<b>13 inches:</b>			
1984.....	***	***	0
1985.....	***	***	0
1986.....	***	***	0
January-June—			
1986.....	***	***	0
1987.....	***	***	0
<b>14 inches and over:</b>			
1984.....	***	***	0
1985.....	***	***	0
1986.....	***	***	0
January-June—			
1986.....	***	***	0
1987.....	***	***	0
<b>Total:</b>			
1984.....	100	100	100
1985.....	100	100	100
1986.....	100	100	100
January-June—			
1986.....	100	100	100
1987.....	100	100	100

1/ Domestic shipments plus company transfers.

2/ \*\*\* U.S. producers of CRT TV's, accounting for \*\*\* percent of reported total U.S. shipments of CRT TV's in 1986, provided shipment data by screen size. Shipment figures include products produced from imported CRT TV subassemblies and CRT TV assemblies. CRT TV assemblies imported from Japan are covered by the scope of the dumping order.

3/ \*\*\* U.S. importers of CRT TV's from Japan, accounting for nearly \*\*\* percent of reported imports of CRT TV's from Japan in 1986, provided shipment data by screen size. See table 19 for imports of CRT TV's by screen sizes as reported in official statistics of the U.S. Department of Commerce. These statistics differ significantly from the information compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

4/ \*\*\* U.S. importers of LCD TV's from Japan, accounting for \*\*\* percent of reported imports of LCD TV's from Japan in 1986, provided shipment data by screen size.

5/ Less than 0.5 percent.

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

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

All reported U.S. producers' shipments were of color CRT TV's (table 10). During 1984-86 between \* \* \* and \* \* \* percent of total U.S. shipments of CRT TV's imported from Japan were color. Roughly \* \* \* percent of total U.S. shipments of LCD TV's imported from Japan during 1984-86 were monochrome.

#### U.S. producers' exports

The primary markets for U.S. producers' exports of CRT TV's are Canada, South America, and Central America. As shown in the following tabulation, the quantities of U.S. producers' exports of television receivers, as compiled from questionnaire responses, increased 37 percent during 1984-86:

<u>Item</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>January-June—</u>	
				<u>1986</u>	<u>1987</u>
Quantity (1,000 units)...	233	249	319	148	148
Value (million dollars)...	75	78	101	46	49
Unit value.....	\$321	\$314	\$317	\$308	\$328

Note.—Because of rounding, figures may not compute to those shown.

#### U.S. producers' inventories

Data compiled from questionnaire responses indicate that U.S. producers' yearend inventories of television receivers increased irregularly by 17 percent during 1984-86. As shown in the following tabulation, inventories of U.S.-produced television receivers as a percent of total U.S. shipments rose from 5 to 10 percent during the period covered by the investigation:

<u>Period</u>	<u>End of period inventories (1,000 units)</u>	<u>Ratio of inventories to total U.S. shipments 1/ (percent)</u>
1984.....	677	5
1985.....	499	4
1986.....	789	6
January-June—		
1986.....	933	2/ 8
1987.....	1,132	2/ 10

1/ Total U.S. shipments equals domestic shipments plus company transfers. Figures were calculated using data from firms that provided information on both inventories and shipments. \* \* \* firms, accounting for \* \* \* percent of reported total U.S. shipments in 1986, reported data on inventories.

2/ Calculated on the basis of annualized shipments.

Table 10  
Television receivers: Total U.S. shipments 1/ of U.S.-produced and imported TV's, by display types, 1984-86

Display type and year	(Percent of total U.S. shipments)		
	CRT TV's— U.S. producers' total U.S. shipments 2/	Total U.S. shipments of TV's imported from Japan 3/	LCD TV's— Total U.S. shipments of TV's imported from Japan 4/
<b>Monochrome:</b>			
1984.....	0	***	***
1985.....	0	***	***
1986.....	0	***	***
<b>Color:</b>			
1984.....	100	***	***
1985.....	100	***	***
1986.....	100	***	***
<b>Total:</b>			
1984.....	100	100	100
1985.....	100	100	100
1986.....	100	100	100

1/ Domestic shipments plus company transfers.

2/ \* \* \* U.S. producers of CRT TV's, accounting for \* \* \* percent of reported total U.S. shipments of CRT TV's in 1986, provided shipment data by display type. Shipment figures include products produced from CRT TV subassemblies and imported CRT TV assemblies. CRT TV assemblies imported from Japan are covered by the scope of the dumping order.

3/ \* \* \* U.S. importers of CRT TV's from Japan, accounting for nearly \* \* \* percent of reported imports of CRT TV's from Japan in 1986, provided shipment data by display type. See app. E for imports of complete monochrome and color CRT TV's presented separately as reported by the official statistics of the U.S. Department of Commerce.

4/ \* \* \* U.S. importers of LCD TV's from Japan, accounting for \* \* \* percent of reported imports of LCD TV's from Japan in 1986, provided shipment data by display type.

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

U.S. producers' imports

U.S. producers import CRT TV assemblies and complete CRT TV's (table 11). In addition, many of the foreign-owned producers of CRT TV's in the United States have separate sales and importing divisions. In addition to handling imported products, these divisions may also be responsible for sales of domestically produced television receivers. The following information on imports of television receivers is for the U.S. producers' manufacturing divisions, and affiliated sales and/or importing companies (if applicable).

\* \* \* \* \*

Employment and wages 1/

The number of production and related workers employed by U.S. producers of television receivers fell from 11,908 in 1984 to 10,954 in 1986, or by 8 percent (table 12). The hours worked and wages and total compensation paid to these workers followed a similar trend; each decreased between 3 and 7 percent during 1984-86. During January-June 1987, the number of production and related workers, hours worked, and wages and total compensation paid, all fell between 8 and 12 percent compared with the corresponding period of 1986. During 1984-86, productivity increased roughly 12 percent, hourly compensation rose 2 percent, and unit labor costs fell 6 percent.

The production and related workers at 7 of the \* \* \* firms providing employment information are represented by a union. These firms accounted for \* \* \* percent of total U.S. shipments of complete CRT TV's in 1986. In a memorandum in opposition to the institution of a review investigation, counsel on behalf of the respondents 2/ indicated that the respondents "represent workers engaged in the domestic production of television receivers," and that the "Industrial Union Department, AFL-CIO, is a federation of national and international labor unions which represents the interests of all workers engaged in the production of television receivers." 3/

In its producers' questionnaire, the Commission requested U.S. producers to provide detailed information concerning reductions in the number of production and related workers producing television receivers occurring between January 1984 and June 1987. Seven producers responded.

\* \* \* \* \*

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1/ Firms providing employment data accounted for roughly \* \* \* percent of reported total U.S. shipments of CRT TV's in 1986.

2/ The respondents include the Independent Radionic Workers of America; the International Brotherhood of Electrical Workers; the International Union of Electronic, Electrical, Technical, Salaried and Machine Workers, AFL-CIO-CLC; and the Industrial Union Department, AFL-CIO.

3/ Collier, Shannon, Rill & Scott, memorandum in opposition to the request for institution of a changed circumstances review, July 8, 1987, p. 1.

Table 11

Television receivers: U.S. producers' imports <sup>1/</sup> of complete CRT TV's and CRT TV assemblies, 1984-86, January-June 1986, and January-June 1987

Source	1984	1985	1986	January-June—	
				1986	1987
Quantity (1,000 units)					
Complete CRT TV's:					
From Japan.....	1,543	1,449	1,323	897	***
From all other countries.....	3,784	2,946	4,457	1,873	2,675
Total.....	5,327	4,395	5,780	2,770	***
CRT TV assemblies: <sup>2/</sup>					
From Japan.....	***	***	***	***	***
From all other countries.....	***	***	***	***	***
Total.....	***	***	***	***	***
Value (million dollars)					
Complete CRT TV's:					
From Japan.....	312	296	316	245	***
From all other countries.....	433	341	584	258	357
Total.....	745	637	900	503	***
CRT TV assemblies: <sup>2/</sup>					
From Japan.....	***	***	***	***	***
From all other countries.....	***	***	***	***	***
Total.....	***	***	***	***	***

<sup>1/</sup> Includes imports by affiliated sales and/or importing companies.

<sup>2/</sup> Assemblies are incomplete, unfinished, or unassembled television receivers, which while not in finished form are capable of receiving a broadcast television signal and producing a video image. Included in this are "kits" which contain all the parts necessary for assembly into complete receivers. These articles, like complete television receivers, are covered by the dumping finding.

<sup>3/</sup> Less than \$500,000.

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

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

Table 12

Television receivers: Average number of production and related workers producing CRT TV's, hours worked, 1/ wages and total compensation 2/ paid to such employees, and labor productivity, hourly compensation, and unit labor costs, 1984-86, January-June 1986, and January-June 1987 3/

Source	1984	1985	1986	January-June—	
				1986	1987
Production and related workers:					
Number.....	11,908	11,399	10,954	10,484	9,239
Percentage change.....	-	-4	-4	-	-12
Hours worked by production and related workers:					
Number (1,000 hours)...	23,356	21,913	21,823	10,771	9,560
Percentage change.....	-	-6	<u>4/</u>	-	-11
Wages paid to production and related workers:					
Value (1,000 dollars)...	189,881	183,564	180,844	86,922	79,537
Percentage change.....	-	-3	-1	-	-8
Total compensation paid to production and related workers:					
Value (1,000 dollars)...	244,530	238,072	237,741	113,591	104,622
Percentage change.....	-	-3	<u>4/</u>	-	-8
Labor productivity: <u>5/</u>					
Quantity (units per hour).....	0.49	0.51	0.55	0.53	0.59
Percentage change.....	-	+3	+8	-	+10
Hourly compensation: <u>6/</u>					
Value.....	\$8.13	\$8.38	\$8.29	\$8.07	\$8.32
Percentage change.....	-	+3	-1	-	+3
Unit labor costs: <u>7/</u>					
Value.....	\$21.22	\$21.40	\$19.89	\$19.86	\$18.70
Percentage change.....	-	+1	-7	-	-6

1/ Includes hours worked plus hours of paid leave time.

2/ Includes wages and contributions to Social Security and other employee benefits.

3/ Firms providing employment data accounted for roughly \* \* \* percent of reported total U.S. shipments of CRT TV's in 1986.

4/ Decreased less than 0.5 percent.

5/ Calculated using data from firms that provided information on both production and hours worked.

6/ Based on wages paid excluding fringe benefits. Calculated using data from firms that provided information on both wages paid and hours worked.

7/ Based on total compensation paid. Calculated using data from firms that provided information on both total compensation paid and production.

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

### Financial experience of U.S. producers

Fifteen producers provided usable income-and-loss data on the overall operations of their establishments within which television receivers are produced, as well as on their operations producing only television receivers. The 15 firms accounted for more than \* \* \* percent of reported total U.S. shipments of CRT TV's during 1986.

Overall establishment operations.—Aggregate income-and-loss data on overall establishment operations are presented in table 13. Aggregate net sales of the reporting firms 1/ fell from \$5.9 billion in 1984 to \$5.8 billion in 1985, or by 2.4 percent, then increased to \$6.2 billion in 1986, or by 7.7 percent. Sales of television receivers accounted for approximately 64 percent of aggregate establishment net sales during 1986.

Operating income plummeted from \$137.4 million in 1984 to a loss of \$43.2 million in 1985. Operating losses were cut to \$13.0 million during 1986. The operating income (loss) margins for the producers during the 1984-86 period were 2.3 percent, (0.7) percent, and (0.2) percent, respectively. Three producers experienced operating losses during 1984 and 1985, and six firms reported operating losses in 1986.

During the interim period ended June 30, 1987, aggregate net sales totaled \$2.9 billion, up 7.5 percent from net sales of \$2.7 billion reported during interim 1986. Aggregate operating losses improved from \$46.2 million during interim 1986 to \$37.1 million during interim 1987. The operating loss margins for the 1986 and 1987 interim periods were 1.7 percent and 1.3 percent, respectively. Seven firms reported operating losses during interim 1986, and 10 firms reported operating losses during interim 1987.

Operations producing television receivers.—Income-and-loss data on television receivers are presented in table 14. Net sales of the 15 firms 2/ fell from \$3.8 billion during 1984 to \$3.7 billion during 1985, or by 3.0 percent, then increased to \$4.0 billion during 1986.

Operating income declined significantly from \$148.7 million in 1984 to \$25.7 million in 1985, a decrease of 82.7 percent, and then fell further to \$12.1 million during 1986, or by 52.7 percent. The aggregate operating margins for the producers during 1984-86 were 3.9 percent, 0.7 percent, and 0.3 percent, respectively. Three producers experienced operating losses during 1984, two firms reported operating losses during 1985, and five firms incurred operating losses during 1986.

Aggregate net sales totalled \$1.7 billion during the 1987 interim period, down 1.7 percent from aggregate sales reported during interim 1986. Operating losses worsened from \$19.6 million in interim 1986 to \$31.8 million during interim 1987. The operating loss margins during interim 1986 and 1987 were 1.1 percent and 1.9 percent, respectively. Seven of the producers experienced operating losses during interim 1986, and 10 firms reported losses during interim 1987.

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1/ The firms are \* \* \*.

2/ Ibid.

Table 13

Income-and-loss experience of U.S. producers 1/ on the overall operations of their establishments within which television receivers are produced, accounting years 1984-86 and interim periods ended June 30, 1986, and June 30, 1987

Item	1984 <u>3/</u>	1985	1986	Interim period ended June 30— <u>2/</u>	
				1986	1987
Value (1,000 dollars)					
Net sales.....	5,930,938	5,788,352	6,235,369	2,666,498	2,866,381
Cost of goods sold.....	5,417,189	5,451,383	5,844,931	2,539,120	2,718,137
Gross profit.....	513,749	336,969	390,438	127,378	148,244
General, selling, and administrative expenses...	376,390	380,178	403,463	173,587	185,379
Operating income or (loss)..	137,359	(43,209)	(13,025)	(46,209)	(37,135)
Startup or shutdown expense.....	***	***	0	0	0
Interest expense.....	***	***	69,296	31,173	36,226
Other income, net.....	***	***	570	1,213	1,871
Net income or (loss) before income taxes.....	87,085	(81,441)	(81,751)	(76,169)	(71,490)
Depreciation and amorti- zation included above.....	78,757	92,887	105,553	50,585	54,534
Cash flow <u>5/</u> .....	165,842	11,446	23,802	(25,584)	(16,956)
Share of net sales (percent)					
Cost of goods sold.....	91.3	94.2	93.7	95.2	94.8
Gross profit.....	8.7	5.8	6.3	4.8	5.2
General, selling, and administrative expenses...	6.3	6.6	6.5	6.5	6.5
Operating income or (loss)..	2.3	(0.7)	(0.2)	(1.7)	(1.3)
Net income or (loss) before income taxes.....	1.5	(1.4)	(1.3)	(2.9)	(2.5)
Number of firms reporting					
Operating losses.....	3	3	6	7	10
Net losses.....	3	5	7	9	11
Data.....	14	15	15	14	14

1/ The firms are \* \* \*.

2/ \* \* \*.

3/ \* \* \*.

4/ \* \* \*.

5/ Cash flow is defined as being net income or loss plus depreciation and amortization.

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

Table 14

Income-and-loss experience of U.S. producers 1/ on their operations producing television receivers, accounting years 1984-86 and interim periods ended June 30, 1986, and June 30, 1987

Item	1984 3/	1985	1986	Interim period ended June 30—2/	
				1986	1987
Value (1,000 dollars)					
Net sales.....	3,828,874	3,712,162	3,983,790	1,735,928	1,707,263
Cost of goods sold.....	3,337,701	3,355,901	3,610,217	1,598,975	1,577,842
Gross profit.....	491,173	356,261	373,573	136,953	129,421
General, selling, and administrative expenses...	342,518	330,585	361,435	156,529	161,266
Operating income or (loss).. Startup or shutdown expense.....	148,655	25,676	12,138	(19,576)	(31,845)
Interest expense.....	***	***	0	0	0
Other income or (expense), net.....	***	***	49,927	23,220	20,479
Net income or (loss) before income taxes.....	***	***	(5,257)	110	(3,491)
Depreciation and amorti- zation included above.....	106,592	(41,418)	(43,046)	(42,686)	(55,815)
Cash flow <u>5/</u> .....	69,933	82,980	99,577	47,839	50,951
	176,525	41,562	56,531	5,153	(4,864)
Share of net sales (percent)					
Cost of goods sold.....	87.2	90.4	90.6	92.1	92.4
Gross profit.....	12.8	9.6	9.4	7.9	7.6
General, selling, and administrative expenses...	8.9	8.9	9.1	9.0	9.4
Operating income or (loss).. Net income or (loss) before income taxes.....	3.9	0.7	0.3	(1.1)	(1.9)
	2.8	(1.1)	(1.1)	(2.5)	(3.3)
Number of firms reporting					
Operating losses.....	3	2	5	7	10
Net losses.....	3	4	7	9	11
Data.....	14	15	15	14	14

1/ The firms are \* \* \*

2/ \* \* \*

3/ \* \* \*

4/ \* \* \*

5/ Cash flow is defined as being net income or loss plus depreciation and amortization.

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

The four largest U.S. producers of TV receivers in terms of 1986 sales dollars, 1/ which are also among the U.S. manufacturers of color picture tubes, accounted for an exceptionally large percentage of the aggregate operating losses, as shown in the tabulation below (in thousands of dollars, except as noted):

Item	1984	1985	1986	Interim period ended June 30—	
				1986	1987
<b>Net sales:</b>					
Four largest firms..	2,548,528	2,312,856	2,336,761	1,113,252	1,063,067
All other firms.....	1,280,346	1,399,306	1,647,029	622,676	644,196
Total.....	3,828,874	3,712,162	3,983,790	1,735,928	1,707,263
<b>Operating income or (loss):</b>					
Four largest firms..	80,500	(28,678)	(4,070)	(32,298)	(34,131)
All other firms.....	68,155	54,354	16,208	12,722	2,286
Total.....	148,655	25,676	12,138	(19,576)	(31,845)
<b>Operating income or (loss) as a share of net sales:</b>					
Four largest firms (percent)...	3.2	(1.2)	(0.2)	(2.9)	(3.2)
All other firms (percent)...	5.3	3.9	1.0	2.0	0.4
Weighted average (percent)...	3.9	0.7	0.3	(1.1)	(1.9)

**Value of plant, property, and equipment.**—The data provided by the U.S. firms on their end-of-period investment in productive facilities in which television receivers are produced are shown in table 15. The aggregate investment in productive facilities for television receivers, valued at cost, increased from \$829.5 million in 1985 to \$943.9 million in 1986. The book value of such assets increased from \$385.6 million in 1985 to \$417.8 million in 1986.

The asset valuation for television receivers, at original cost, increased from \$634.5 million as of June 30, 1986, to \$673.0 million as of June 30, 1987. The book value of such assets rose from \$302.1 million as of June 30, 1986, to \$306.6 million as of June 30, 1987.

1/ The firms are \* \* \*.

Table 15  
Television receivers: Value of property, plant, and equipment of U.S. producers, 1/ accounting years 1984-86 and interim periods ended June 30, 1986, and June 30, 1987

(In thousands of dollars, except as noted)

Item	As of end of accounting year—			As of June 30—	
	1984	1985	1986	1986	1987
All products of establishments:					
Original cost.....	897,864	1,016,548	1,158,165	1,008,284	1,086,835
Book value.....	444,984	476,348	518,565	460,008	476,689
Number of firms reporting..	12	13	13	13	13
Television receivers:					
Original cost.....	735,471	829,452	943,865	634,514	672,967
Book value.....	361,683	385,592	417,784	302,067	306,593
Number of firms reporting..	12	13	13	13	13

1/ The firms are \* \* \*.

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

Capital expenditures.—The data provided by the U.S. firms relative to their capital expenditures for land, buildings, and machinery and equipment used in the manufacture of television receivers are shown in table 16. Capital expenditures relating to television receivers increased from \$92.3 million in 1985 to \$110.7 million in 1986. Such expenditures declined from \$55.2 million during the interim period ended June 30, 1986, to \$53.5 million during the interim period ended June 30, 1987.

None of the reporting firms reported any capital expenditures relating to LCD TV's during the periods surveyed.

Research and development expenses.—Research and development expenses relating to CRT TV's are shown in the following tabulation for 1984-86 and the interim periods of 1986 and 1987 (in thousands of dollars):

Item	1984	1985	1986	Interim period ended June 30—	
				1986	1987
All products produced in establishment.....	***	***	***	***	***
CRT receivers.....	***	***	***	***	***
LCD receivers.....	0	0	0	0	0

None of the firms producing CRT TV's reported any research and development expenses for LCD TV's. \* \* \*.

Table 16

Television receivers: Capital expenditures by U.S. producers, 1/ accounting years 1984-86 and interim periods ended June 30, 1986, and June 30, 1987

(In thousands of dollars, except as noted)

Item	1984	1985	1986	Interim period ended June 30—	
				1986	1987
All products of establish- ments:					
Land and land improve- ments.....	***	***	***	***	***
Building and leasehold improvements.....	***	***	***	***	***
Machinery, equipment, and fixtures.....	110,317	109,389	129,242	65,640	61,934
Total.....	120,678	130,240	145,571	74,561	64,250
Number of firms reporting..	12	13	13	13	13
Television receivers:					
Land and land improve- ments.....	***	***	***	***	***
Building and leasehold improvements.....	***	***	***	***	***
Machinery, equipment, and fixtures.....	76,567	74,397	90,265	42,280	46,233
Total.....	89,397	92,259	110,749	55,156	53,492
Number of firms reporting..	12	13	13	13	13

1/ The firms are \* \* \*.

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

#### U.S. Imports 1/

##### TV assemblies

Imports of CRT TV assemblies (monochrome and color) from Japan increased nearly threefold from 1984 to 1985 (table 17). 2/ During 1986 imports of such

1/ Importers questionnaires were received from \* \* \* importers accounting for roughly \* \* \* percent of imports of CRT TV's from Japan in 1986 as reported by the official statistics of the U.S. Department of Commerce. Because imported CRT TV's are classified in TSUSA items that include only the products subject to investigation, official statistics of the U.S. Department of Commerce are presented and used in the calculation of apparent U.S. consumption. Since, for statistical purposes, imports of LCD TV's are entered under TSUSA items that may contain products not subject to the existing antidumping order, responses from the Commission's importers' questionnaires are presented and used in the calculation of apparent U.S. consumption.

2/ See app. E for imports of monochrome and color CRT TV assemblies presented separately.

Table 17

Television receivers: U.S. imports for consumption of CRT TV assemblies (monochrome and color), 1/ by principal sources, 1984-86, January-June 1986, and January-June 1987 2/

Source	1984	1985	1986	January-June—	
				1986	1987
Quantity (1,000 units)					
Japan.....	63	247	483	156	144
Hong Kong.....	1	27	50	31	2
Republic of Korea.....	3	18	2	1	97
Malaysia.....	0	16	20	0	0
Mexico.....	504	649	515	285	111
Singapore.....	75	120	427	101	64
Taiwan.....	4	21	2	1	8
All other.....	3/	3	1	1	3
Total.....	650	1,100	1,500	577	429
Value (million dollars) 4/					
Japan.....	11	37	69	25	30
Hong Kong.....	5/	1	8	5	5/
Republic of Korea.....	5/	1	5/	5/	9
Malaysia.....	—	1	1	—	—
Mexico.....	61	71	58	31	19
Singapore.....	4	9	33	7	6
Taiwan.....	5/	2	5/	5/	2
All other.....	5/	5/	5/	5/	1
Total.....	78	120	171	68	68

1/ Includes imports in TSUSA items 684.9400, 684.9655, 684.9656, 684.9658, 684.9660, and 684.9663. See tables E-1 and E-2 for imports of monochrome CRT TV assemblies and color CRT TV assemblies presented separately.

2/ Because of a lag in reporting, official import statistics include some "carry-over" data for merchandise imported, but not reported, in prior periods (usually the previous month). Beginning in 1987, Commerce extended its monthly data compilation cutoff date by about 2 weeks in order to significantly reduce the amount of carry-over. Therefore, official statistics for January 1987 include data that would previously have been carried over to February 1987. However, in order to avoid an apparent overstatement of the January 1987 data, the carry-over data from 1986 that would have been included in January 1987 official statistics as of the previous cutoff date have been excluded. Commerce isolated these 1986 carry-over data and has not included them in official statistics for 1986 or January 1987, since their inclusion in either period would result in an apparent overstatement. With respect to imports from Japan, this carry-over amounted to 5,400 units, with a c.i.f. duty-paid value of 1.9 million dollars.

3/ Less than 500 units.

4/ Import values are c.i.f. duty-paid values.

5/ Less than 0.5 million dollars.

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

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

CRT TV assemblies from Japan nearly doubled from 1985 levels. During January-June 1987 imports from Japan fell 8 percent from the level reported during the corresponding period of 1986. Total imports of CRT TV assemblies from all countries more than doubled during 1984-86. However, during January-June 1987, total imports fell 26 percent from the levels reported in the corresponding period of 1986. There were no imports of LCD TV assemblies reported.

#### Complete CRT TV's

Imports of complete CRT TV's (monochrome and color) from Japan increased from 3.1 million units in 1984 to 5.1 million units in 1985, or by 61 percent (table 18). 1/ In 1986, such imports fell to 3.5 million units, or by 30 percent from the 1985 level, and during January-June 1987 imports of complete CRT TV's from Japan fell 46 percent compared with the corresponding period of 1986. Total imports of complete CRT TV's increased 27 percent from 1984 to 1986 and rose an additional 8 percent during January-June 1987 compared with the corresponding period of 1986. Imports of CRT TV's by screen sizes are presented in table 19 (totals in table 19 do not include imports under TSUSA item 684.9275 since that item is not size specific).

#### Complete LCD TV's 2/

Since, for statistical purposes, imports of LCD TV's are entered under TSUSA items that contain products not subject to the existing antidumping order, responses from the Commission's importers' questionnaires were used to measure the quantity and value of imports of LCD TV's from Japan. It is believed that no other country manufactures and exports LCD TV's to the United States. 3/ As shown in the following tabulation, imports of complete LCD TV's (monochrome and color), based on quantity, increased nearly twenty-four fold during 1984-86:

<u>Item</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>January-June—</u>	
				<u>1986</u>	<u>1987</u>
Quantity (1,000 units)...	32	320	771	***	***
Value (million dollars)...	***	24	52	***	***

1/ See app. E for imports of complete monochrome and color CRT TV's presented separately.

2/ The \* \* \* U.S. importers of LCD TV's responding to the Commission's importers' questionnaire are estimated to account for \* \* \* percent of the LCD TV's imported from Japan in 1986.

3/ Transcript, p. 55.

Table 18

Television receivers: Total U.S. imports for consumption of complete CRT TV's (monochrome and color), 1/ by principal sources, 1984-86, January-June 1986, and January-June 1987 2/

Item	1984	1985	1986	January-June—	
				1986	1987
Quantity (1,000 units)					
Japan.....	3,139	5,052	3,512	1,734	943
People's Republic of China.....	0	4	3	<u>3/</u>	75
Hong Kong.....	200	201	497	121	221
Republic of Korea.....	4,838	3,828	5,010	2,164	2,373
Mexico.....	2	171	875	274	694
Singapore.....	210	539	663	320	258
Taiwan.....	3,046	2,775	3,901	1,523	1,734
West Germany.....	1	2	6	5	1
All other.....	348	580	470	156	504
Total.....	11,785	13,151	14,938	6,298	6,802
Value (million dollars) <u>4/</u>					
Japan.....	531	601	627	311	183
People's Republic of China.....	—	<u>5/</u>	<u>5/</u>	<u>5/</u>	10
Hong Kong.....	34	31	76	16	40
Republic of Korea.....	449	264	386	164	184
Mexico.....	<u>5/</u>	22	113	34	93
Singapore.....	37	86	104	49	43
Taiwan.....	348	332	448	176	232
West Germany.....	2	2	3	2	1
All other.....	93	115	99	36	80
Total.....	1,493	1,453	1,857	788	867

1/ Includes imports in TSUSA items 684.9230, 684.9232, 684.9234, 684.9236, 684.9238, 684.9240, 684.9245, 684.9246, 684.9248, 684.9250, 684.9252, 684.9253, 684.9255, 684.9256, 684.9258, 684.9262, 684.9263, and 684.9275. See tables E-3 and E-4. for imports of complete monochrome CRT TV's and complete color CRT TV's presented separately.

2/ Because of a lag in reporting, official import statistics include some "carry-over" data for merchandise imported, but not reported, in prior periods (usually the previous month). Beginning in 1987, Commerce extended its monthly data compilation cutoff date by about 2 weeks in order to significantly reduce the amount of carry-over. Therefore, official statistics for January 1987 include data that would previously have been carried over to February 1987. However, in order to avoid an apparent overstatement of the January 1987 data, the carry-over data from 1986 that would have been included in January 1987 official statistics as of the previous cutoff date have been excluded. Commerce isolated these 1986 carry-over data and has not included them in official statistics for 1986 or January 1987, since their inclusion in either period would result in an apparent overstatement. With respect to imports from Japan, this carry-over amounted to 37,031 units, with a c.i.f. duty-paid value of 2.7 million dollars.

3/ Less than 500 units.

4/ Import values are c.i.f. duty-paid values.

5/ Less than 0.5 million dollars.

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

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

Table 19

Television receivers: Total U.S. imports for consumption of complete CRT TV's (monochrome and color), 1/ by screen sizes, 1984-86, January-June 1986, and January-June 1987

Item	1984	1985	1986	January-June—	
				1986	1987
Quantity (1,000 units)					
10 inches and under: <u>2/</u>					
From Japan.....	918	919	754	383	241
From all other sources..	1,080	1,656	2,795	1,030	1,267
Total.....	1,998	2,576	3,549	1,413	1,508
11 and 12 inches: <u>3/</u>					
From Japan.....	101	134	30	18	10
From all other sources..	3,797	2,765	2,281	1,033	891
Total.....	3,898	2,899	2,312	1,052	901
13 through 17 inches: <u>4/</u>					
From Japan.....	842	916	830	465	349
From all other sources..	2,139	2,015	3,229	1,247	1,852
Total.....	2,981	2,931	4,060	1,712	2,201
18 inches and over: <u>5/</u>					
From Japan.....	1,220	3,025	1,744	766	310
From all other sources..	1,619	1,656	3,096	1,250	1,838
Total.....	2,839	4,681	4,840	2,016	2,148
All CRT TV's:					
From Japan.....	3,081	4,994	3,359	1,632	910
From all other sources..	8,634	8,092	11,402	4,560	5,848
Total.....	11,716	13,086	14,761	6,192	6,758
Percent of total imports of CRT TV's					
10 inches and under: <u>2/</u>					
From Japan.....	7.8	7.0	5.1	6.2	3.6
From all other sources..	9.2	12.7	18.9	16.6	18.7
Total.....	17.0	19.7	24.0	22.8	22.3
11 and 12 inches: <u>3/</u>					
From Japan.....	.9	1.0	.2	.3	.1
From all other sources..	32.4	21.1	15.5	16.7	13.2
Total.....	33.3	22.1	15.7	17.0	13.3
13 through 17 inches: <u>4/</u>					
From Japan.....	7.2	7.0	5.6	7.5	5.2
From all other sources..	18.3	15.4	21.9	20.1	27.4
Total.....	25.5	22.4	27.5	27.6	32.6
18 inches and over: <u>5/</u>					
From Japan.....	10.4	23.1	11.8	12.4	4.6
From all other sources..	13.8	12.7	21.0	20.2	27.2
Total.....	24.2	35.8	32.8	32.6	31.8
All CRT TV's:					
From Japan.....	26.3	38.2	22.8	26.4	13.5
From all other sources..	73.7	61.8	77.2	73.6	86.5
Total.....	100.0	100.0	100.0	100.0	100.0

1/ Does not include imports under TSUSA item 684.9275 since that item is not size specific.

2/ Includes imports in TSUSA items 684.9230, 684.9232, 684.9234, 684.9246, and 684.9248.

3/ Includes imports in TSUSA items 684.9236 and 684.9250.

4/ Includes imports in TSUSA items 684.9238, 684.9252, 684.9253, 684.9255, and 684.9256.

5/ Includes imports in TSUSA items 684.9240, 684.9245, 684.9258, 684.9262, and 684.9263.

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

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

Imports entered under TSUS item 807.00

TSUS item 807.00 provides for the duty-free treatment of the U.S. components of goods that are first exported to another country for further assembly or processing and are then returned to the United States. The ratio of the value of imports of complete CRT TV's (monochrome and color) entering duty-free to the total value of imports of complete CRT TV's under TSUS item 807.00 is shown in the following tabulation (in percent):

<u>Period</u>	<u>Ratio of duty-free value to total import value 1/</u>
1984.....	12.0
1985.....	35.5
1986.....	35.7
January-June—	
1986.....	33.6
1987.....	34.9

1/ Customs value.

The bulk of imports of complete color CRT TV's entered under TSUS item 807.00 are from Mexico and Canada. The bulk of imports of complete monochrome CRT TV's entered under TSUS item 807.00 in 1984 and 1985 were from the People's Republic of China. For statistical purposes, imports of CRT TV's under TSUS item 807.00 are included in data reported for TSUS items 684.92, 684.94, and 684.96 (see tables 17-19).

U.S. inventories of television receivers from Japan

The following tabulation presents end-of-period inventories held in the United States and the inventory-to-shipment ratio of CRT TV's and LCD TV's imported from Japan (as compiled from questionnaire responses):

<u>Period</u>	<u>End of period inventories (1,000 units)</u>	<u>Ratio of inventories to total U.S. shipments 1/ (percent)</u>
<b>CRT TV's:</b>		
1984.....	330	22
1985.....	326	22
1986.....	131	9
January-June—		
1986.....	256	<u>2/</u> 14
1987.....	***	<u>2/</u> ***
<b>LCD TV's:</b>		
1984.....	***	***
1985.....	***	***
1986.....	***	***
January-June—		
1986.....	***	<u>2/</u> ***
1987.....	***	<u>2/</u> ***

1/ Total U.S. shipments equals domestic shipments plus company transfers. Calculated using data from firms that provided information on both inventories and shipments. \* \* \* firms, accounting for \* \* \* percent of reported total U.S. imports of CRT TV's from Japan in 1986, reported data on inventories. \* \* \* firms, accounting for \* \* \* percent of reported total U.S. imports of LCD TV's from Japan in 1986, reported data on inventories.

2/ Calculated on the basis of annualized shipments.

#### Market Penetration

On the basis of quantity, imports of CRT TV's from Japan accounted for 13 percent of total apparent U.S. consumption of CRT TV's in 1984 and 1986, and 20 percent in 1985 (table 20). During January-June 1987, imports of CRT TV's from Japan accounted for 8 percent of apparent U.S. consumption, down from 14 percent during the corresponding period of 1986. During 1984-86, market penetration, on the basis of value, fluctuated between 10 and 12 percent (table 21).

Market penetration by imports of CRT TV's from all sources, on the basis of quantity, increased from 48 percent in 1984 to 56 percent during January-June 1987. During 1984-86, market penetration by imports of CRT TV's from all sources, on the basis of value, fluctuated between 27 and 32 percent. A similar trend was shown for combined imports of CRT TV's and LCD TV's.

Table 20

Television receivers: U.S. producers' total U.S. shipments, <sup>1/</sup> imports for consumption, apparent U.S. consumption, and market penetration, calculated on the basis of quantity, by types, 1984-86, January-June 1986, and January-June 1987 <sup>2/</sup>

Item	1984	1985	1986	January-June—	
				1986	1987
U.S. producers total					
domestic shipments:					
CRT TV's (1,000 units).	12,653	12,611	12,685	5,965	5,385
LCD TV's (1,000 units).	0	0	0	0	0
Total (1,000 units)..	12,653	12,611	12,685	5,965	5,385
Imports from Japan:					
CRT TV's (1,000 units).	3,139	5,052	3,512	1,734	943
LCD TV's (1,000 units).	32	320	771	***	***
Total (1,000 units)..	3,171	5,372	4,283	***	***
Imports from all sources:					
CRT TV's (1,000 units).	11,785	13,151	14,938	6,298	6,802
LCD TV's (1,000 units).	32	320	771	***	***
Total (1,000 units)..	11,817	13,471	15,710	***	***
Apparent U.S. consumption:					
CRT TV's (1,000 units).	24,438	25,762	27,624	12,263	12,187
LCD TV's (1,000 units).	32	320	771	***	***
Total (1,000 units)..	24,470	26,082	28,395	***	***
Market penetration by imports from Japan:					
CRT TV's (percent).....	13	20	13	14	8
LCD TV's (percent).....	100	100	100	100	100
Average (percent)....	13	21	15	***	***
Market penetration by imports from all sources:					
CRT TV's (percent).....	48	51	54	51	56
LCD TV's (percent).....	100	100	100	100	100
Average (percent)....	48	52	55	***	***

<sup>1/</sup> Domestic shipments plus company transfers. Shipment figures include products produced from imported CRT TV subassemblies and CRT TV assemblies. CRT TV assemblies imported from Japan are covered by the scope of the dumping order. Due to less than full coverage, total U.S. shipments, U.S. imports of LCD TV's, and, therefore, apparent U.S. consumption are understated.

<sup>2/</sup> As noted in table 18, footnote 2, some carry-over data have been excluded from 1986 and January 1987 official statistics. Including these imports in January-June 1987 figures would result in a total apparent U.S. consumption of CRT TV's of 12.2 million units. The resulting market penetration by imports of CRT TV's from Japan would be 8 percent.

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

Source: Compiled from official statistics of the U.S. Department of Commerce (imports of CRT TV's) and from data obtained in response to questionnaires of the U.S. International Trade Commission (imports of LCD TV's and U.S. producers' total U.S. shipments).

Table 21

Television receivers: U.S. producers' total U.S. shipments, 1/ imports for consumption, apparent U.S. consumption, and market penetration, calculated on the basis of value, 2/ by types, 1984-86, January-June 1986, and January-June 1987 3/

Item	1984	1985	1986	January-June—	
				1986	1987
U.S. producers total U.S. shipments:					
CRT TV's (million dollars)..	4,046	3,854	3,940	1,845	1,715
LCD TV's (million dollars)..	0	0	0	0	0
Total (million dollars)...	4,046	3,854	3,940	1,845	1,715
Imports from Japan:					
CRT TV's (million dollars)..	531	601	627	311	183
LCD TV's (million dollars)..	***	24	52	***	***
Total (million dollars)...	***	625	679	***	***
Imports from all sources:					
CRT TV's (million dollars)..	1,493	1,453	1,857	788	867
LCD TV's (million dollars)..	***	24	52	***	***
Total (million dollars)...	***	1,477	1,909	***	***
Apparent U.S. consumption:					
CRT TV's (million dollars)..	5,539	5,307	5,797	2,632	2,582
LCD TV's (million dollars)..	***	24	52	***	***
Total (million dollars)...	***	5,331	5,849	***	***
Market penetration by imports from Japan:					
CRT TV's (percent).....	10	11	11	12	7
LCD TV's (percent).....	100	100	100	100	100
Average (percent).....	***	12	12	***	***
Market penetration by imports from all sources:					
CRT TV's (percent).....	27	27	32	30	34
LCD TV's (percent).....	100	100	100	100	100
Average (percent).....	***	28	33	***	***

1/ Domestic shipments plus company transfers. Shipment figures include products produced from imported CRT TV subassemblies and CRT TV assemblies. CRT TV assemblies imported from Japan are covered by the scope of the dumping order. Due to less than full coverage, total U.S. shipments, U.S. imports of LCD TV's, and, therefore, apparent U.S. consumption are understated.

2/ Import values are c.i.f. duty-paid values.

3/ As noted in table 18, footnote 2, some carry-over data have been excluded from 1986 and January 1987 official statistics. Including these imports in January-June 1987 figures would result in a total apparent U.S. consumption of CRT TV's of \$2.6 billion. The resulting market penetration by imports from Japan of CRT TV's would be 7 percent.

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

Source: Compiled from official statistics of the U.S. Department of Commerce (imports of CRT TV's) and from data obtained in response to questionnaires of the U.S. International Trade Commission (imports of LCD TV's and U.S. producers' total U.S. shipments).

## Prices

Generally, prices for LCD TV's have fallen during the January 1984 to June 1987 period. However, the way most LCD TV's from Japan have been marketed may have limited the rate of decline in price. The three avenues of distribution normally found in the television market are wholesalers, brand-name retailers, and private-label retailers. \* \* \* have opted to sell a majority of their LCD TV's through brand-name retailers. Although \* \* \* do sell a significant amount of LCD TV's through wholesalers and distributors, only \* \* \* have made limited steps into private-label retailing. <sup>1/</sup> Private-label retailing tends to accelerate price declines by involving mass merchandisers in the retail market. These large retailers buy in very large volumes and are able to offer consumers a lower price. Also, private-label retailing tends to increase consumer sales of a new product since mass merchandisers sell through a large number of outlets and more consumers are made aware of the new product. \* \* \* sells LCD TV's imported from Japan through wholesalers, distributors, and brand-name retailers. \* \* \*. To date, large mass merchandisers such as Sears and K-mart have not begun to sell LCD TV's under a private label.

Price comparisons

The Commission sent questionnaires to producers and importers and requested price information on four broad product groups. These groups were chosen to allow respondents the maximum opportunity to categorize a diverse set of television receivers, models, sizes, and features. The first two products for which prices were requested were 13-inch CRT TV's with mechanical tuners and 13-inch CRT TV's with electronic tuning, and remote control. The third product group requested respondents to report prices for their largest selling LCD TV, regardless of size or any other characteristic. The final product group for which prices were requested were CRT TV's under 13 inches. Respondents to the questionnaire were also asked to break out sales to wholesalers, brand-name retailers, and private-label retailers.

The Commission received 10n questionnaires with usable pricing information. Pricing data were received for four LCD TV's, five 5-inch CRT TV's, and one 9-inch CRT TV. \* \* \*. No price information was received from U.S. producers regarding any LCD TV sales.

Prices were received from \* \* \* on their \* \* \* LCD TV's, from \* \* \* on their \* \* \* and \* \* \* LCD TV's, from \* \* \* on their \* \* \* LCD TV's, and from \* \* \* on their \* \* \* LCD TV's. The following tabulation details the generally declining prices to brand-name retailers and private-label retailers (\* \* \*) of LCD TV's imported from Japan during the period of investigation: <sup>2/</sup>

\* \* \* \* \*

<sup>1/</sup> During the period of investigation, \* \* \* sold approximately \* \* \* percent of its product through distributors and \* \* \* sold \* \* \* percent.

<sup>2/</sup> Although \* \* \*, \* \* \*, and \* \* \* also supplied prices for sales of LCD TV's to distributors, the data were based on a very limited number of sales.

Some competing non-LCD TV's commonly available in the U.S.-market appear to be 5-inch CRT TV's. These CRT TV's possess some of the same features, such as portability and battery power, as the LCD TV's under investigation. One major drawback associated with the small CRT TV's are their size. The LCD TV's are much smaller than the 5-inch CRT TV's and can be carried in a consumer's pocket, a briefcase, or purse. This feature is an advertising point for producers of LCD TV's, as reflected in their trade names: Panasonic "Pocket Watch," Citizen "Book Vision," etc.

The Sony "Watchman," which is equipped with a bent-neck CRT, may be the best substitute for the LCD TV's currently available. The Watchman is equipped with a 2-inch monochrome screen and is small enough to be favorably compared with the LCD TV's on the basis of portability and ease of use.

Currently, none of these small CRT TV's are produced in the United States. \* \* \*. Table 22 details prices from seven firms that reported sales of CRT TV's sized 2 to 9 inches in the U.S. market. Because of model changes during the period of investigation, prices moved erratically over time between producers. Generally, however, prices declined over the period.

#### Possible economic effects

In the event that the dumping order presently in place is modified to exclude LCD TV's, there may be future ramifications for the domestic television market.

In the short run, modification of the dumping order will likely have little immediate effect on the market. Prices would likely fall at a faster rate and the supply of LCD TV's from Japan would likely increase. Because \* \* \*, declines in domestic production, employment, and profits are likely to be very small. The most probable economic effect in the short run would be lower consumer costs.

While the domestic producers' current position is not to produce LCD TV's in commercial quantities to compete with imported LCD TV's, in the long run LCD TV's may have the ability to compete with the current domestic CRT televisions. Although they are now limited in screen size, the technology does exist to allow production of larger LCD screens. At some point in time, provided that picture quality improves and cost problems are overcome, LCD and CRT TV's could eventually compete for the same consumer dollar.

Petitioners claim that larger LCD screens have been produced only as "laboratory curiosities." <sup>1/</sup> Mr. John MacDonald of Casio testified at the Commission hearing that his firm could produce an 11-or 12-inch LCD TV, but it would be unsalable. Mr. MacDonald stated that his prototype LCD TV could not be sold for under \$2,000 and the picture quality would still be poor. Another disadvantage would be the limited viewing angle because of its passive matrix design. Viewing angle problems may be solved using an active matrix design,

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<sup>1/</sup> Transcript p. 64.

Table 22

Television receivers: Net delivered prices per unit, 1984-86 and January-June 1987

\* \* \* \* \*

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

but this would lead to large increases in the retail price of the product. It is Mr. MacDonald's view that larger screen LCD TV's will be a laboratory item for the next 10 years. 1/

As mentioned earlier, a recent article in the Wall Street Journal suggested that the market for LCD TV's is developing in a typical pattern in the Japanese industry. Citizen and Seiko, the leaders in the development of LCD technology, are embarking on a long-range plan to develop the consumer market for LCD technologies. LCD TV technology allows for a wide range of commercial applications. 2/ The article suggests that Seiko and Citizen are attempting to develop the enormous commercial potential of this technology by marketing simpler consumer products, such as watches, computer displays, and calculators. 3/

A goal for any company wishing to establish a consumer market for a new technology should be consumer awareness of the technology. One potential problem may exist for Seiko and Citizen. Because the development of LCD technology has been from watches to televisions, consumer perceptions of the producers may impede the transition. U.S. consumers may associate Seiko and Citizen with the manufacture of watches, not televisions, and this may dampen consumer acceptance of their relatively new product. The entry into the market of Matsushita, Hitachi, and Sharp Corp., all recognized consumer-electronic makers, may increase the pace of research into bigger and better LCD TV's.

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1/ Ibid. pp. 61-64.

2/ For a discussion of LCD television applications, see the section entitled "Description and uses."

3/ See section of the report entitled "The producers in Japan."

Exchange rates

Quarterly data reported by the International Monetary Fund indicate that during January 1984–June 1987 the nominal value of the Japanese yen appreciated 61.9 percent relative to the U.S. dollar (table 23). 1/ Adjusted for movements in Producer Price Indexes in the United States and Japan, the real value of the Japanese currency registered an overall appreciation equivalent to 39.8 percent during that period.

Table 23

U.S.–Japanese exchange rates: 1/ Nominal–exchange–rate equivalents of the Japanese yen in U.S. dollars, real–exchange–rate equivalents, and producer price indicators in the United States and Japan, 2/ by quarters, January 1984–June 1987

Period	U.S. Producer Price Index	Japanese Producer Price Index	Nominal– exchange– rate index ——US dollars/yen——	Real– exchange– rate index <u>3/</u>
1984:				
January–March.....	100.0	100.0	100.0	100.0
April–June.....	100.7	99.9	100.6	99.8
July–September.....	100.4	100.7	94.9	95.1
October–December....	100.2	100.4	93.9	94.1
1985:				
January–March.....	100.0	100.8	89.7	90.4
April–June.....	100.1	100.1	92.1	92.1
July–September.....	99.4	99.0	96.8	96.4
October–December....	100.0	96.7	111.6	107.9
1986:				
January–March.....	98.5	94.4	123.0	117.8
April–June.....	96.6	90.4	135.8	127.1
July–September.....	96.2	87.9	148.3	135.6
October–December....	96.5	86.6	144.1	129.2
1987:				
January–March.....	97.7	86.2	150.8	133.1
April–June.....	99.3	85.8	161.9	139.8

1/ Exchange rates expressed in U.S. dollars per Japanese yen.

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

3/ The indexed real exchange rate represents the nominal exchange rate adjusted for movements in Producer Price Indexes in the United States and Japan. Producer prices in the United States decreased 0.7 percent during the period January 1984 through June 1987. In contrast, producer prices in Japan decreased 14.2 percent during that period.

Note.—January–March 1984=100.0.

Source: International Monetary Fund, International Financial Statistics, September 1987.

APPENDIX A

FEDERAL REGISTER NOTICES

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### INTERNATIONAL TRADE COMMISSION

#### Television Receivers From Japan; Request for Comments Concerning the Institution of a Section 751(b) Review Investigation

**AGENCY:** United States International Trade Commission.

**ACTION:** Request for comments regarding the institution of a section 751(b) review investigation concerning the Commission's affirmative determination in investigation No. AA1921-66, Television Receiving Sets from Japan.

**SUMMARY:** The Commission invites comments from the public on whether changed circumstances exist sufficient to warrant the institution of an investigation pursuant to section 751(b) of the Tariff Act of 1930 (19 U.S.C. 1675(b)) to review the Commission's affirmative determination in investigation No. AA1921-66, regarding television receivers from Japan. The purpose of the proposed 751(b) review investigation, if instituted, would be to determine whether an industry in the United States would be materially injured, or would be threatened with material injury, or the establishment of an industry in the United States would be materially retarded, by reason of imports of liquid crystal display televisions (LCD TVs) from Japan if the antidumping order regarding such merchandise were to be modified. LCD TVs are provided for in items 684.98 and 685.04 of the Tariff Schedules of the United States.

**FOR FURTHER INFORMATION CONTACT:** Daniel Leahy (202-523-1378), Office of Investigations U.S. International Trade Commission, 701 E Street NW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the

Commission's TDD terminal on 202-724-0002.

**SUPPLEMENTARY INFORMATION:** On March 4, 1971, the Commission determined that an industry in the United States was being injured by reason of imports of television receivers, monochrome and color, from Japan which the Department of Treasury had determined were being, or were likely to be sold at less than fair value (LTFV) within the meaning of the Antidumping Act, 1921, as amended (19 U.S.C. 160(a)). Accordingly, on March 9, 1971, a dumping finding with respect to television receivers from Japan was published in the Federal Register as Treasury Decision 71-78 (36 FR 4597).

On April 28, 1987, the Commission received a request, pursuant to section 751(b) of the Act, to modify T.D. 71-78 to exclude LCD TVs from the scope thereof. This request is filed by counsel on behalf of Casio Computer Co., Ltd., Casio, Inc., Citizen Watch Co., Ltd., Hitachi, Ltd., Hitachi Sales Corporation of America, Hitachi Sales Corporation of Hawaii, Inc., Matsushita Electrical Industrial Co., Ltd., Matsushita Electric Corporation of America, NEC Corporation, NEC Home Electronics (U.S.A.), Inc., Seiko Epson Corporation, Sharp Corporation, Sharp Electronics Corporation, Toshiba Corporation, and Toshiba America, Inc.

#### Written Comments Requested

Pursuant to § 207.45(b)(2) of the Commission's rules of practice and procedure (19 CFR 207.45(b)(2)), the Commission requests comments concerning whether the following alleged changed circumstances are sufficient to warrant institution of a review investigation: In 1983, Japanese television producers introduced LCD TVs into the U.S. market. The domestic television industry produces only cathode ray tube televisions (CRT TVs) with screen sizes no smaller than 13 inches. LCD TVs differ from CRT TVs in several significant respects: (1) LCD TVs are produced using completely different technology from that applicable to CRT TVs; (2) LCD TVs are far smaller and lighter than CRT TVs, and use self-contained power sources; (3) unlike CRT TVs, which are designed for in-home viewing, LCD TVs are truly portable, and are therefore used primarily outside the home; and (4) LCD TVs are marketed differently than CRT TVs, through different retail outlets from CRT TVs, and are priced in a manner that is not competitive with CRT TVs. Therefore, LCD TVs do not compete with CRT TVs and, hence, their importation and sale do not materially

injure or threaten material injury to the U.S. television industry.

**Written Submission**

In accordance with § 201.8 of the Commission rules (19 CFR 201.8), the signed original and 14 copies of all written submissions must be filed with the Secretary to the Commission, 701 E Street NW., Washington, DC 20438. All comments must be filed no later than 30 days after the date of publication of this notice in the Federal Register. Any person desiring to submit a document (or portion thereof) to the Commission in confidence must request business confidential treatment under § 201.8 of the Commission's rules (19 CFR 201.8). Such requests should be directed to the Secretary to the Commission and must include a full statement of the reasons why the Commission should grant such treatment. Each sheet must be clearly marked at the top "Confidential Business Data." The Commission will either accept the submission in confidence or return it. All nonconfidential written submissions will be available for public inspection in the Office of the Secretary.

Copies of the request for review of the injury determination and any other documents in this matter are available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the office of the Secretary to the Commission; telephone 202-523-0161.

By order of the Commission.

Kenneth R. Mason,  
Secretary.

Issued: June 2, 1987.

[FR Doc. 87-12900 Filed 6-8-87; 8:45 am]

GALLING CODE 7020-02-00

**SUMMARY:** The Commission hereby gives notice that it has initiated an investigation pursuant to section 751(b) of the Tariff Act of 1930 (19 U.S.C. 1675(b)) to review its determination in investigation No. AA1921-66. The purpose of the investigation is to determine whether an industry in the United States would be materially injured, or would be threatened with material injury, or the establishment of an industry in the United States would be materially retarded, by reason of imports of liquid crystal display television receivers (LCD TVs) from Japan if the antidumping order regarding such merchandise were to be modified. LCD TVs are provided for in items 684.98 and 685.04 of the Tariff Schedules of the United States. As provided in § 207.45(b) of the Commission's Rules of Practice and Procedure (19 CFR 207.45(b)), the 120-day period for completion of this investigation begins on the date of publication of this notice in the Federal Register.

For further information concerning the conduct of this investigation, hearing procedures, and rules of general application, consult Part 207, Subparts and E (19 CFR Part 207), and Part 201, Subparts A through E (19 CFR Part 201) of the Commission's rules.

**EFFECTIVE DATE:** August 20, 1987.

**FOR FURTHER INFORMATION CONTACT:** Vera Libeau (202-523-0368), Office of Investigations, U.S. International Trade Commission, 701 E Street NW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-724-0002. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-523-0161.

**SUPPLEMENTARY INFORMATION:**

**Background**

On March 4, 1971, the Commission determined that an industry in the United States was being injured by reason of imports of television receivers, monochrome and color, from Japan which the Department of Treasury had determined were being, or were likely to be sold at less than fair value (LTFV) within the meaning of the Antidumping Act, 1921, as amended (19 U.S.C. 160(a). Accordingly, on March 9, 1971, a dumping finding with respect to television receivers from Japan was published in the Federal Register as Treasury Decision 71-78 (36 FR 4597).

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**INTERNATIONAL TRADE COMMISSION**

(Investigation No. 751-TA-14)

**Import Investigations; Liquid Crystal Display Television Receivers From Japan**

**AGENCY:** International Trade Commission.

**ACTION:** Institution of a review investigation concerning the Commission's affirmative determination in investigation No. AA1921-66, Television Receiving Sets from Japan.

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On April 28, 1987, the Commission received a request, pursuant to section 751(b) of the Act, to modify T.D. 71-76 to exclude LCD TVs from the scope thereof. This request was filed by counsel on behalf of Casio Computer Co., Ltd., Casio, Inc., Citizen Watch Co., Ltd., Hitachi, Ltd., Hitachi Sales Corporation of America, Hitachi Sales Corporation of Hawaii, Inc., Matsushita Electrical Industrial Co., Ltd., Matsushita Electric Corporation of America, NEC Corporation, NEC Home Electronics (U.S.A.), Inc., Seiko Epson Corporation, Sharp Corporation, Sharp Electronics Corporation, Toshiba Corporation, and Toshiba America, Inc.

On June 8, 1987, the Commission published a request for comments concerning the institution of a section 751(b) review investigation on television receivers from Japan (52 FR 21630). In response to the Commission's request for comments, statements in support of the institution of a review investigation were received from Cable Value Network, Caldor, Trader Horn, W.R. Light Company, Inc., and 47th St. Photo. All of these firms are retailers of consumer products and argued that LCD TVs do not compete with CRT TVs. A memorandum in opposition to the institution of a review investigation was filed by Collier, Shannon, Rill & Scott on behalf of the Independent Radiomic Workers of America, the International Brotherhood of Electrical Workers, the International Union of Electronic, Electrical, Technical, Salaried and Machine Workers, AFL-CIO-CLC, and the Industrial Union Department, AFL-CIO. Their submission argued that the requisite showing of changed circumstances had not been made by the petitioners and their petition for an investigation should consequently be denied.

After consideration of the request for review and the responses to the notice inviting comments, the Commission has determined, pursuant to 19 U.S.C. 1675(b) and rule 19 CFR 207.45, that the request shows changed circumstances sufficient to warrant institution of a review investigation regarding LCD TVs from Japan.

#### Participation in the Investigation

Persons wishing to participate in this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than twenty-one (21) days after the publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairman, who will determine whether to accept the late

entry for good cause shown by the person desiring to file the entry.

#### Service List

Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance. In accordance with §§ 201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by the service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

#### Staff Report

A public version of the prehearing staff report in this investigation will be placed in the public record on October 26, 1987, pursuant to § 207.21 of the Commission's rules (19 CFR 207.21).

#### Hearing

The Commission will hold a hearing in connection with this investigation beginning at 9:30 a.m. on November 12, 1987, at the U.S. International Trade Commission Building, 701 E Street NW., Washington, DC. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission not later than the close of business (5:15 p.m.) on October 27, 1987. All persons desiring to appear at the hearing and make oral presentations should file prehearing briefs and attend a prehearing conference to be held at 9:30 a.m. on November 2, 1987, in room 117 of the U.S. International Trade Commission Building. The deadline for filing prehearing briefs is November 5, 1987.

Testimony at the public hearing is governed by § 207.23 of the Commission's rules (19 CFR 207.23). This rule requires that testimony be limited to a nonconfidential summary and analysis of material contained in prehearing briefs and to information not available at the time the prehearing brief was submitted. Any written materials submitted at the hearing must be filed in accordance with the procedures described below and any confidential materials must be submitted at least three (3) working days prior to the hearing (see § 201.6(b)(2) of the Commission's rules (19 CFR 201.6(b)(2))).

#### Written Submissions

All legal arguments, economic analyses, and factual materials relevant to the public hearing should be included in prehearing briefs in accordance with 207.22 of the Commission's rules (19 CFR 207.22). Posthearing briefs must conform with the provisions of section 207.24 (19 CFR 207.24) and must be submitted not later than the close of business on November 18, 1987. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before November 18, 1987.

A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the Commission's rules (19 CFR 201.8). All written submissions except for confidential business data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any business information for which confidential treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Confidential Business Information." Confidential submissions and requests for confidential treatment must conform with the requirements of § 201.6 of the Commission's rules (19 CFR 201.6).

**Authority:** This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.45 of the Commission's rules (19 CFR 207.45).

By order of the Commission.

Issued: August 14, 1987.

Kenneth R. Mason,

Secretary.

[FR Doc. 87-19010 Filed 8-19-87; 8:45 am]

BILLING CODE 7020-02-M



**APPENDIX B**  
**LIST OF WITNESSES**  
**APPEARING AT THE COMMISSION'S HEARING**

Calendar of Public Hearing

Investigation No. 751-TA-14

LIQUID CRYSTAL DISPLAY TELEVISION RECEIVERS FROM JAPAN

Those listed below appeared at the United States International Trade Commission's hearing held in connection with the subject investigation on November 12, 1987, in the Hearing Room of the USITC Building, 701 E Street NW., Washington, DC.

In support of the application for review of the determination of injury

Weil, Gotshal & Manges—Counsel  
New York, NY.  
on behalf of—

Casio Computer Co., Ltd.; Casio, Inc.; Citizen Watch Co., Ltd.; Hitachi, Ltd.; Hitachi Sales Corp. of America; Hitachi Sales Corp. of Hawaii, Inc.; Matsushita Electrical Industrial Co., Ltd.; Matsushita Electric Corp. of America; NEC Corp.; NEC Home Electronics (U.S.A.), Inc.; Seiko Epson Corp.; Sharp Corp.; Sharp Electronics Corp.; Toshiba Corp.; and Toshiba America, Inc.

John G. Reilly, ICF, Inc., economic consultant

John J. McDonald, President, Casio, Inc.

Jerry Surprise, National Product Manager, Matsushita Industrial Co.,  
Division of Matsushita Electric Corp. of America

Don H. Lowry, Director of Engineering, Matsushita Industrial Co.,  
Division of Matsushita Electric Corp. of America

Stuart M. Rosen—OF COUNSEL

APPENDIX C

LIST OF PREVIOUS COMMISSION  
INVESTIGATIONS INVOLVING TELEVISION RECEIVERS

The Commission's Related Investigations with Final Determinations 1/

I. Dumping

1. Television Receiving Sets from Japan, Investigation No. AA1921-66, TC Publication 367, 1971.

The Commission determined unanimously that an industry in the United States was being injured by imports of television receiving sets, monochrome and color, from Japan sold at LTFV.

2. Color Television Picture Tubes from Japan, Investigation No. AA1921-104, TC Publication 529, 1972.

The Commission determined by a vote of five affirmative votes with one abstention that the domestic color picture tube industry was not being or likely to be injured by the importation of color television picture tubes from Japan.

3. Television Receiving Sets from Japan, Investigation No. 751-TA-2, USITC Publication 1153, June 1981.

In June 1981, the Commission determined that an industry in the United States would be threatened with material injury by reason of imports of television receiving sets from Japan covered by antidumping order T.D. 71-76 if the order were to be modified or revoked.

4. Color Television Receivers from the Republic of Korea and Taiwan, Investigations Nos. 731-TA-134 and 135 (Final), USITC Publication 1514, April 1984.

In April 1984, the Commission determined that an industry in the United States was materially injured or threatened with material injury by reason of imports of color television receivers from Korea and Taiwan that were found by Commerce to be sold in the United States at less than fair value.

II. Import Relief

1. Television Receivers and Certain Parts Thereof, Investigation No. TEA-I-21, TC Publication 436, 1971.

The Commission determined in a 5-to-1 vote that television receivers and parts thereof were not, as a result in major part of concessions granted under trade agreements, being imported into the United States in such increased quantities as to cause or threaten to cause serious injury to the domestic industry producing like or directly competitive products.

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1/ Much of the following information is taken from the Commission's report on its previous review investigation regarding television receivers from Japan, Television Receiving Sets from Japan: Determination of the Commission in Investigation No. 751-TA-2 . . . , USITC Publication 1153, June 1981.

2. Television Receivers, Color and Monochrome, Assembled or Not Assembled, Finished or Not Finished, and Subassemblies Thereof, Investigation No. TA-201-19, USITC Publication 808, 1977.

The Commission unanimously determined that color television receivers were being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic industry. The Commission was equally divided and therefore made no finding on whether there was serious injury to the United States monochrome television receiver industry or to that portion of the domestic industry producing subassemblies of color television receivers.

3. Color Television Receivers and Subassemblies Thereof, Investigation No. TA-203-6, USITC Publication 1068, 1980.

The Commission unanimously determined that termination of import relief in effect with respect to complete and incomplete television receivers from Japan would not have an adverse economic effect on the domestic industry. The Commission did decide that the termination of quantitative restrictions with respect to television receivers from Korea and Taiwan would have an adverse economic effect on the domestic industry.

### III. Section 603

1. Television Receivers from Japan, Investigation No. 603-TA-1.

A preliminary investigation under section 603 was instituted on April 8, 1976, on the basis of a complaint under section 337. The investigation was suspended on December 20, 1976 (41 F.R. 55949).

### IV. Section 337, Unfair Import Practices

1. Certain Color Television Receiving Sets, TA-337-23 (1977).

The Commission terminated the investigation on the basis of consent orders in July 1977 (42 F.R. 39492).

### V. Adjustment Assistance

1. Television Receivers: Production and Maintenance Workers at RCA Corp. Plant, Memphis TN, Investigation No. TEA-W-70, TC Publication 376, 1971.

The Commission was equally divided and therefore made no finding on whether TV receivers were being imported in such increased quantities as to

cause, or threaten to cause the unemployment or underemployment of a significant number of workers at the RCA plant in Memphis, TN. 1/

2. Television Receivers, Radios and Phonographs: Former Workers at the Emerson Television & Radio Co., Jersey City, NJ, Investigation No. TEA-W-77, TC Publication 380, 1971.

The Commission was equally divided and therefore made no finding as to whether imports were causing or threatening to cause significant unemployment of workers at the Emerson Television and Radio Companies at Jersey City. 2/

3. Television Picture Tubes: Certain Workers of the RCA Corp., New York, NY, Investigation No. TEA-W-136, TC Publication 136, 1972.

The Commission unanimously found that imports of television picture tubes, color and monochrome, were not being imported in such increased quantities as to cause or threaten to cause significant unemployment of the workers at RCA.

4. Television Yokes, Tuners, and Horizontal Output Transformers, and Unrecorded Magnetic Tape: Workers at RCA Plants, Indianapolis, IN, Investigation No. TEA-W-144, TC Publication 502, 1972.

The Commission unanimously found that articles like unrecorded magnetic tape were not being imported into the United States in such increased quantities as to cause significant unemployment at RCA. As the Commission was equally divided, it made no finding as to whether imports of television yokes, television tuners, and television horizontal output transformers had caused significant unemployment at RCA.

5. Certain (Television) Components of CATV and MATV Systems: Workers of the Philadelphia, PA, Plant of Jerrold Electronics Corp., Subsidiary of General Instrument Corp., Investigation No. TEA-W-164, TC Publication 542, 1973.

The Commission, in a vote of 4 to 2, found that certain components were not being imported in such increased quantities as to cause significant unemployment of workers at Jerrold Electronics Corp.

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1/ In 1971, the President decided, under the authority of sec. 330(d)(1) of the Tariff Act of 1930, to consider the finding of those Commissioners who found in the affirmative as the findings in the case. Accordingly, he advised the Secretary of Labor that he could certify the workers in TEA-W-70, RCA Corp., Memphis, TN, and TEA-W-77, Emerson Television & Radio Co., Jersey City, NJ, as eligible for adjustment assistance. See Department of Labor, Notice of Investigation Regarding Certification of Eligibility of Workers to Apply for Adjustment Assistance (36 F.R. 9154).

2/ Ibid.

6. Television Receivers, Radio Receivers, Phonographs and Radio-Phonograph Combinations: Workers of Zenith Radio Corp., Investigation No. TEA-W-177, TC Publication 562, 1973.

The Commission, in a vote of 4 to 2, found that imports of articles like or directly competitive with radio receivers and radio-phonograph combinations were of such increased quantity as to cause significant unemployment at Zenith. The Commission, however, in a vote of 4-to-2, found that imports of television receivers and phonographs were not in such increased quantities as to cause unemployment at Zenith.

7. Television Receivers, Radio-Television-Phonograph Combinations, and Radio-Phonograph Combinations; Workers of the Wheeling, IL, plant of TMA Co., Investigation No. TEA-W-188, TC Publication 583, 1973.

The Commission found in a 5-to-1 decision that television receivers, radio-television-phonograph combinations, and radio-phonograph combinations were not being imported in such increased quantities as to cause significant unemployment at the Wheeling, IL, plant of TMA.



APPENDIX D

CHRONOLOGY OF CUSTOMS/TREASURY AND COMMERCE ACTIONS

A summary of Customs/Treasury and Commerce actions and events are presented below. 1/

March 22, 1968—A complaint was filed by counsel on behalf of the Tube Division, Electronic Industries Association, alleging that monochrome and color television sets from Japan were being imported into the United States at LTFV.

June 10-18, 1968—An Antidumping Proceeding Notice was published in the Federal Register, and questionnaires were sent to Japanese manufacturers.

September 7, 1970—A notice of withholding of appraisement was published in the Federal Register. 2/

December 4, 1970—The case was referred to the U.S. Tariff Commission for an injury determination.

December 5, 1970—A Treasury determination of LTFV sales was published in the Federal Register. 3/

March 4, 1971—The Tariff Commission notified the Secretary of the Treasury that the U.S. industry was being injured. 4/

December 1971-January 1972—Sony Corp. made inquiry as to whether television components and subassemblies imported by Sony for assembly into finished sets were within the scope of the dumping finding. 5/

November 21, 1972—Customs issued master lists of foreign-market value and exporters' sales prices for entries of television receivers from Japan from September 1970 through December 1971 with instructions to proceed with appraisement. 6/ During this period, claims for adjustments were made by various Japanese firms.

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1/ Much of the following information is taken from the Commission's report on its previous review investigation regarding television receivers from Japan, Television Receiving Sets from Japan: Determination of the Commission in Investigation No. 751-TA-2 . . ., USITC Publication 1153, June 1981.

2/ On Sept. 8, 1970, a Customs Information Exchange notice was sent to all Customs offices requiring posting of a 9-percent bond on all entries of television receivers from Japan.

3/ 35 F.R. 1854.

4/ T.D. 71-76, finding of dumping, was published in the Federal Register, Mar. 9, 1971 (36 F.R. 4597).

5/ Feb. 4, 1972, Treasury notified Sony that such imports would be considered outside the dumping determination scope contingent on the transition by Sony to scheduled expansion of its U.S. operations to television receiver production.

6/ Entries of 15 Japanese exporters were involved.

March-December 1973—Several Japanese firms—Toshiba, Matsushita, and Sony—made requests for modification of the dumping finding. None were excluded at that time.

1973-74—Issues and problems Customs faced with respect to margin calculations included tardy submissions, adjustment allowance decisions, and the impact on dumping duty assessments of yen revaluation and currency realignments, the import surcharge, and the U.S. price freeze.

January-March 1974—Customs issued master lists covering entries by Sony Corp. and General Corp. during time periods in 1971 through March 1972.

August 15, 1974—A tentative determination to revoke the dumping finding against Sony Corp. was published. 1/

1974-75—Mitsubishi and Toshiba requested Customs to expedite its master list preparation for liquidating entries for the period April 1, 1971, through September 30, 1972.

February-March 1976—Customs announces that television receivers manufactured by Matsushita Electric Industrial Co., Ltd., and imported between April 1, 1971, and September 30, 1972, were free of dumping liability. With the exception of three entries, Sanyo Corp. was also declared free of dumping liability.

March 1976—In a civil antitrust action in the district court in Philadelphia, Zenith Radio Corp. and N.U.E. (formerly National Union Electric) alleged that Japanese manufacturers were granting secret rebates on U.S imports of television receivers from Japan.

August 1976—Several more supplemental instructions were issued by Customs to appraise and liquidate entries for the period April 1, 1971, through March 31, 1972. Entries by Sharp Electronics Corp. and Mitsubishi Electric Corp. during this period were declared free of dumping liability.

August 1976—An internal Customs memorandum noted that all firms involved had been requested to submit current information but were reluctant to do so while the antitrust action was pending.

September 27, 1976—Crown Radio Corp. submitted a letter of assurance to Customs that further export sales to the United States, if any, would not be at LTFV.

November 1, 1976—Customs sent to Treasury a summary of dumping duties collected to that date.

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1/ 39 F.R. 29391. A final notice was published on Feb. 13, 1975, removing Sony from the dumping finding, 40 F.R. 6647.

December 1976—Treasury informed exporters' counsel that data on pre-1975 entries must be received by December 31 or appraisement would be made on the basis of the best information available.

January-February 1977—The widespread practice of fraudulent invoicing surfaces by the voluntary tender of duties submitted by Gamble Import Corp. and by Customs agents inspection of the public record of the Zenith-N.U.E. antitrust suit against the Japanese manufacturers in the Philadelphia district court.

April 7, 1977—Customs notified the field to suspend all liquidation of Japanese television sets pending further advice from headquarters. At the same time, additional bonding requirements were adopted on entries of television receivers from Japan, as well as those from Korea and Taiwan shipped from Japan as kits for assembly by Japanese subsidiaries.

Mid-December 1977 to March 1978—A special U.S. Customs Service task force determined that antidumping duties of approximately \$382 million were owed for unliquidated entries of television receivers from Japan through March 1977. As a result of the prolonged inability to obtain timely, accurate, and complete data on home-market value from Japanese television manufacturers, Customs used reports made by those firms in compliance with Japan's Commodity Tax Law as a basis for determining home-market values for use in computing the penalty duties owed. 1/ Liquidation notices for the subject entries were prepared and distributed for posting by U.S. Customs Service offices on March 31, 1978.

March 27, 1978—The Government of Japan protested the use of the Commodity Tax reports as a basis for computing the dumping duties. In response, Treasury decided to delete all entries subsequent to June 30, 1973 from the notices already distributed for posting. The Commissioner of Customs recommended against limiting the notices of liquidation and for assessing dumping duties through March 1977. 2/

March 31, 1978—Entries through June 30, 1973, were liquidated. Antidumping duties of \$46 million were assessed on those entries but were not collected by Customs. 3/

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1/ Memorandum dated Oct. 18, 1977, from the Commissioner of Customs to Under Secretary of the Treasury and to the General Counsel, Department of the Treasury.

2/ Memorandum dated March 1978 from the Commissioner of Customs to the General Counsel of the Department of the Treasury.

3/ News release, Department of the Treasury, Mar. 31, 1978. The amounts of dumping duties assessed then and subsequently for the period through March 31, 1979, have been revised, and the validity of the assessed amounts was clouded by multiple litigation. However, after considerable procedural delay, Commerce's assessments were upheld by the CIT and affirmed by the Federal Circuit. See Zenith Radio Corp. v. United States, 552 F. Supp. 1052 (CIT 1982), rev'd and remanded, 710 F. 2d 806 (Fed. Cir. 1983), on remand, 606 F. Supp. 695 (CIT 1985), aff'd, 783 F. 2d 184 (Fed. Cir. 1986).

April 10, 1978—Congressmen Charles A. Vanik and Dan Rostenkowski criticized the Treasury action. 1/

September 1978—The Subcommittee on Trade of the House Ways and Means Committee held hearings on the assessment and collection of duties under the Antidumping Act of 1921. Treasury's General Counsel testified that Customs "will move promptly to assess another portion of the backlog" and "will thereafter assess the remainder of the backlog as rapidly as its ability to process the full case permits." 2/

December 1978—Entries of three Japanese television manufacturers during the period from July 1, 1973, to January 1, 1976, were liquidated, and in June 1979, certain entries of television receivers from Japan were liquidated. Together, the assessed duties totaled about \$32 million. Protests were lodged by importers in all three of the above-described liquidations.

Late 1979 to early 1980—The U.S. Customs Service denied some protest claims and upheld others, thus reducing the overall total amount of dumping penalties owed. 3/

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1/ News release, Congressmen Charles Vanik and Dan Rostenkowski (Apr. 10, 1978).

2/ Assessment and Collection of Duties Under the Antidumping Act of 1921: Hearing Before the Subcommittee on Trade of the House Committee on Ways and Means (95th Cong., 2d sess.), (1978) p. 14 (Statement of Robert Mundheim, General Counsel, Department of the Treasury).

3/ Four companies—Sears Roebuck, J.C. Penney, Montgomery Ward and White Stores—executed settlement agreements with respect to civil cases instituted by Customs under section 592 of the Tariff Act of 1930, which allows assessments of penalties for the use of false statements or false practices against the commerce of the United States. The execution of these settlement agreements led to extensive litigation attempting to overturn them. The Federal Circuit held that the merits of the settlement agreements were not reviewable agency "determinations." Montgomery Ward & Co. v. Zenith Radio Corp., 673 F. 2d 1254 (CCPA), cert. denied, 459 U.S. 943 (1982).



APPENDIX E  
STATISTICAL TABLES

Table E-1

Television receivers: U.S. imports for consumption of monochrome CRT TV assemblies, 1/ by principal sources, 1984-86, January-June 1986, and January-June 1987 2/

Source	1984	1985	1986	January-June—	
				1986	1987
Quantity (units)					
Japan.....	620	2,206	1,279	1,209	820
Republic of Korea.....	451	2,936	195	160	3,200
Mexico.....	1,580	836	960	960	0
Taiwan.....	3,316	120	1,334	814	200
All other.....	4	21	1	0	77
Total.....	5,971	6,119	3,769	3,143	4,297
Value (1,000 dollars) <u>3/</u>					
Japan.....	26	23	184	156	202
Republic of Korea.....	10	103	13	9	184
Mexico.....	25	26	87	87	—
Taiwan.....	211	6	155	143	10
All other.....	14	23	3	—	89
Total.....	286	181	443	395	486

1/ Includes imports under TSUSA item 684.9400.

2/ Because of a lag in reporting, official import statistics include some "carry-over" data for merchandise imported, but not reported, in prior periods (usually the previous month). Beginning in 1987, Commerce extended its monthly data compilation cutoff date by about 2 weeks in order to significantly reduce the amount of carry-over. Therefore, official statistics for January 1987 include data that would previously have been carried over to February 1987. However, in order to avoid an apparent overstatement of the January 1987 data, the carry-over data from 1986 that would have been included in January 1987 official statistics as of the previous cutoff date have been excluded. Commerce isolated these 1986 carry-over data and has not included them in official statistics for 1986 or January 1987, since their inclusion in either period would result in an apparent overstatement. There were no carry-over data for TSUSA item 684.9400.

3/ Import values are c.i.f. duty-paid values.

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

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

Table E-2

Television receivers: U.S. imports for consumption of color CRT TV assemblies, 1/ by principal sources, 1984-86, January-June 1986, and January-June 1987 2/

Source	1984	1985	1986	January-June—	
				1986	1987
Quantity (units)					
Japan.....	62,771	244,441	481,773	154,585	143,076
Hong Kong.....	734	26,708	49,982	31,488	1,674
Republic of Korea.....	2,171	14,634	1,476	909	93,743
Malaysia.....	0	16,452	20,000	0	0
Mexico.....	502,305	648,210	513,987	284,434	111,431
Singapore.....	74,729	120,108	426,925	101,466	63,998
Taiwan.....	941	20,741	741	531	7,944
All other.....	297	2,754	1,470	616	2,654
Total.....	643,948	1,094,048	1,496,354	574,029	424,520
Value (1,000 dollars) <u>3/</u>					
Japan.....	11,446	36,940	69,284	24,521	30,291
Hong Kong.....	158	526	7,855	4,716	20
Republic of Korea.....	374	412	165	124	9,146
Malaysia.....	—	539	1,322	—	—
Mexico.....	61,125	70,708	58,299	31,082	18,552
Singapore.....	4,318	8,510	33,312	6,949	6,449
Taiwan.....	166	1,742	177	144	2,107
All other.....	104	400	210	122	524
Total.....	77,691	119,777	170,625	67,659	67,090

1/ Includes imports under TSUSA items 684.9655, 684.9656, 684.9658, 684.9660, and 684.9663.

2/ Because of a lag in reporting, official import statistics include some "carry-over" data for merchandise imported, but not reported, in prior periods (usually the previous month). Beginning in 1987, Commerce extended its monthly data compilation cutoff date by about 2 weeks in order to significantly reduce the amount of carry-over. Therefore, official statistics for January 1987 include data that would previously have been carried over to February 1987. However, in order to avoid an apparent overstatement of the January 1987 data, the carry-over data from 1986 that would have been included in January 1987 official statistics as of the previous cutoff date have been excluded. Commerce isolated these 1986 carry-over data and has not included them in official statistics for 1986 or January 1987, since their inclusion in either period would result in an apparent overstatement. With respect to imports from Japan, this carry-over amounted to 5,400 units, with a c.i.f. duty-paid value of 1.9 million dollars.

3/ Import values are c.i.f. duty-paid values.

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

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

Table E-3

Television receivers: U.S. imports for consumption of complete monochrome CRT TV's, 1/ by principal sources, 1984-86, January-June 1986, and January-June 1987 2/

Source	1984	1985	1986	January-June—	
				1986	1987
Quantity (1,000 units)					
Japan.....	654	670	640	296	237
Hong Kong.....	16	30	157	24	59
Republic of Korea.....	2,997	2,980	3,256	1,411	1,530
Mexico.....	<u>3/</u>	33	35	23	1
Singapore.....	4	6	22	4	26
Taiwan.....	1,631	1,007	1,193	448	222
West Germany.....	1	2	6	5	1
All other.....	44	15	5	2	25
Total.....	5,348	4,743	5,314	2,213	2,102
Value (million dollars) <u>4/</u>					
Japan.....	65	65	52	25	18
Hong Kong.....	1	2	18	2	8
Republic of Korea.....	143	130	129	55	63
Mexico.....	<u>5/</u>	3	4	3	<u>5/</u>
Singapore.....	<u>5/</u>	1	3	1	4
Taiwan.....	87	54	58	22	14
West Germany.....	2	2	3	1	1
All other.....	12	3	3	1	3
Total.....	310	260	271	110	110

1/ Includes imports under TSUSA items 684.9230, 684.9232, 684.9234, 684.9236, 684.9238, 684.9240, and 684.9245.

2/ Because of a lag in reporting, official import statistics include some "carry-over" data for merchandise imported, but not reported, in prior periods (usually the previous month). Beginning in 1987, Commerce extended its monthly data compilation cutoff date by about 2 weeks in order to significantly reduce the amount of carry-over. Therefore, official statistics for January 1987 include data that would previously have been carried over to February 1987. However, in order to avoid an apparent overstatement of the January 1987 data, the carry-over data from 1986 that would have been included in January 1987 official statistics as of the previous cutoff date have been excluded.

Commerce isolated these 1986 carry-over data and has not included them in official statistics for 1986 or January 1987, since their inclusion in either period would result in an apparent overstatement. With respect to imports from Japan, this carry-over amounted to 37,031 units, with a c.i.f. duty-paid value of 2.7 million dollars.

3/ Less than 500 units.

4/ Import values are c.i.f. duty-paid values.

5/ Less than 0.5 million dollars.

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

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

Table E-4

Television receivers: U.S. imports for consumption of complete color CRT TV's, 1/ by principal sources, 1984-86, January-June 1986, and January-June 1987 2/

Source	1984	1985	1986	January-June—	
				1986	1987
Quantity (1,000 units)					
Japan.....	2,485	4,382	2,872	1,438	706
Canada.....	96	164	117	50	49
People's Republic of China.....	0	1	3	3/	60
Hong Kong.....	185	171	341	97	162
Republic of Korea.....	1,841	848	1,754	753	843
Malaysia.....	200	394	343	104	436
Mexico.....	2	138	841	252	692
Singapore.....	205	533	641	316	231
Taiwan.....	1,415	1,768	2,708	1,075	1,512
All other.....	8	10	5	1	9
Total.....	6,438	8,408	9,624	4,085	4,700
Value (million dollars) 4/					
Japan.....	466	536	575	286	165
Canada.....	44	55	49	21	20
People's Republic of China.....	—	5/	5/	5/	10
Hong Kong.....	33	29	58	14	33
Republic of Korea.....	306	133	257	109	121
Malaysia.....	30	44	44	13	57
Mexico.....	5/	19	108	31	92
Singapore.....	36	85	101	49	39
Taiwan.....	261	278	391	154	218
All other.....	7	13	2	1	2
Total.....	1,183	1,193	1,586	678	756

1/ Includes imports under TSUSA items 684.9246, 684.9248, 684.9250, 684.9252, 684.9253, 684.9255, 684.9256, 684.9258, 684.9262, 684.9263, and 684.9275.

2/ Because of a lag in reporting, official import statistics include some "carry-over" data for merchandise imported, but not reported, in prior periods (usually the previous month). Beginning in 1987, Commerce extended its monthly data compilation cutoff date by about 2 weeks in order to significantly reduce the amount of carry-over. Therefore, official statistics for January 1987 include data that would previously have been carried over to February 1987. However, in order to avoid an apparent overstatement of the January 1987 data, the carry-over data from 1986 that would have been included in January 1987 official statistics as of the previous cutoff date have been excluded. Commerce isolated these 1986 carry-over data and has not included them in official statistics for 1986 or January 1987, since their inclusion in either period would result in an apparent overstatement. With respect to imports from Japan, this carry-over amounted to 65,830 units, with a c.i.f. duty-paid value of 15.6 million dollars.

3/ Less than 500 units.

4/ Import values are c.i.f. duty-paid values.

5/ Less than 0.5 million dollars.

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

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

