EX PARTE

Before the
U.S. DEPARTMENT OF COMMERCE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
Washington, D.C. 20230

In the Matter of	)	Docket No.
	)	81257-8257
Inquiry on Production Standards	)	
for High Definition Television (HDTV)	)	

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Federal Communications Commission
Office of the Secretary

COMMENTS OF CBS INC.

CBS Inc. ("CBS") submits these Comments in response to the Notice of Inquiry ("Notice") adopted by the National Telecommunications and Information Administration ("NTIA") on December 16, 1988 in the above docket.*

The NTIA notes that a Plenary Assembly of the International Radio Consultative Committee ("CCIR")** is

* 53 Fed. Reg. 51296 (December 21, 1988).

** The CCIR is the permanent organ of the International Telecommunications Union ("ITU") that "work[s] toward standards ... for radio ... that facilitate international operability of telecommunications equipment and networks." Notice of Inquiry, In the Matter of The Plenipotentiary Conference of the International Telecommunication Union, Nice, France (1989), FCC General Docket No. 88-351, released July 8, 1988 ("PLENIPOT Notice") at 8. CCIR Recommendations "have an important influence with telecommunications scientists and technicians, operating administrations and companies, manufacturers and designers of equipment throughout the world." Id. at 7.

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scheduled for May 1990 that is expected to take up the issue of a single worldwide high definition television ("HDTV") production standard, and it seeks information that would "assist the Department of Commerce in assessing the United States Government position on this issue for the 1990 meeting... ."* Although the United States has supported one proposed HDTV production system as a single worldwide standard (an 1125-line, 60-field per second system, described in more detail infra), the Notice suggests that certain "changes" may have occurred that justify a reassessment of that position.

For the reasons discussed below, CBS believes that the NTIA should not pursue an independent inquiry into international HDTV production standards outside of the established procedures of the U.S. CCIR National Committee. Attainment of a single worldwide HDTV production standard should continue to be the objective of the United States Government at the May 1990 CCIR Plenary Assembly, and the 1125/60 production system that has been approved by U.S. private-sector standards organizations and is supported by the United States Government should continue to receive that support. That private-sector

* 53 Fed. Reg. 51297.

system for international standard-setting, if it is to be effective, must have the unflinching support of the United States Government, and the mere fact that this inquiry is being conducted has the potential to jeopardize that process.*

The Need For A Single Worldwide HDTV Production Standard

The advent of HDTV production systems presents an opportunity -- and a threat -- to a healthy American "software" industry that employs thousands of Americans; that is, the production of motion pictures and television programs.**

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* In that regard, the State Department considers the NTIA inquiry "to be an internal matter of the Department of Commerce" that "has created confusion in some areas." December 27, 1988 Memorandum from Richard E. Shrum to the CCIR National Committee, (U.S. CCIR, No. NC 1181) ("Shrum Memorandum") at 1.

** Production standards establish how and with what equipment HDTV programs are produced. Adoption of standards for HDTV transmission to the home is essentially a domestic issue that is being given intensive study by the FCC and its broadly-based Advisory Committee for Advanced Television, and is the subject of constructive and cooperative activity by organizations such as the broadcast industry's Advanced Television Test Center. Production standards and transmission standards involve separate technical considerations and are related only insofar as a production standard must be able to be converted to particular transmission standards for distribution to the home.

Although there is little disagreement with the proposition that a single worldwide HDTV production standard would be desirable, CBS believes that its importance is worth emphasizing here. American production companies have a natural advantage in world markets for motion pictures and television programs because of the size of the English-speaking market both domestically and worldwide and because a de facto worldwide production standard (35mm) now exists for exchange of programming produced using the film medium. That film production standard is readily convertible to the NTSC transmission system used by American broadcasters and to the PAL and SECAM systems used in Europe, so that access by American producers to world broadcast markets is not now inhibited by standards conversion requirements that are unduly expensive or complex to meet. The natural advantage of American producers and the lack of technical roadblocks to international markets has resulted in a substantial trade surplus for American film entertainment products. It has also directly benefited the public because the larger the market for entertainment software, the higher are production budgets, and the higher is the general level of product quality.

35mm film will remain an important source of program material when HDTV distribution to the home becomes a reality. For example, the longstanding use of this format for motion picture and for some television program production has resulted in a vast inventory of program material of high technical quality. However, electronic production methods have advantages that will undoubtedly result in their increasing use in the future. Besides the cost and technical quality advantages that HDTV production promises, it will facilitate real-time coverage of international events and will generally allow for more convenient international program exchange by electronic means (instead of physical delivery of programming).

A single worldwide HDTV electronic production standard that would provide source material of a technical quality sufficient for future HDTV transmission systems, yet would -- like 35mm film -- be convertible to existing television transmission systems, would ensure that international exchange of American-produced television program material is not artificially inhibited. Conversely, lack of such a worldwide standard could restrict access of American-made product to world markets and endanger the health and growth of American entertainment software industries.

Multiple HDTV production standards would have the net effect of creating non-tariff trade barriers. Under these circumstances, it is not surprising that some European administrations are attempting to employ HDTV technology to blunt this U.S. advantage and inhibit access of the European public to American-produced video material.

The adverse trade implications of multiple production standards are explained in more detail in a report entitled "Advanced Television Standards and Their Impact on United States Exports" that CBS submitted to Rep. Edward J. Markey on February 1 in response to his request for views "concerning methods for optimizing American participation in the development of advanced television technologies and derivative products." A copy of that report is appended to these Comments as Attachment A.

United States Support For The SMPTE 240 Standard Is Based On A Long History Of Private-Sector And CCIR Activity.

The State Department has characterized U.S. participation in international standards-setting activity as essentially "a private sector responsibility."* This responsibility

through the CCIR National Committee, which was established under the Federal Advisory Committee Act.

The NTIA and the FCC are members of the CCIR National Committee and have a voice in production standards development in that capacity, and a State Department representative chairs that Committee. The CCIR National Committee advises the State Department on international standard-setting activities, and, in turn, the State Department acts as the U.S. Administration (as defined in ITU Convention, Annex 2, No. 2002) "in coordinating and effectuating general administrative, political and foreign policy matters with the ITU and its staff, as it does with all international treaty organizations."*

The Notice ignores this intricate private sector-based process and the role it has long played, and continues to play, in the development of an 1125/60 production standard. Instead the Notice blithely asks -- as if this history did not exist -- "what the U.S. Government position should be on the adoption of an HDTV production standard or standards." Notice at 51297.

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* PLENIPOT Notice at 8.

The Notice does acknowledge that the United States supported an 1125/60 production standard at the May 1986 CCIR Plenary Assembly in Dubrovnik. It does not acknowledge that this support continues.* It also does not acknowledge that this standard has received the support of other governments, including Canada, and it has been supported by many North American broadcasting organizations, including CBS, PBS, Televisa Mexico, the Canadian Broadcasting Corporation and the Canadian CTV network. Significantly, because of its potential as a single world production standard to help maintain the strength of the United States entertainment industries in world markets and in so doing enhance job opportunities in those industries, 1125/60 has been been supported by entertainment industry unions such as IATSE and IBEW.

The 1125-line and 60-fields per second standard (now known as SMPTE 240M) has been rigorously examined and approved in the due-process environment of several private sector American standards organizations. Although the Notice refers to the SMPTE standard repeatedly as "the NHK system," in fact the SMPTE 240M 1125/60/2:1 production standard, while based on original proposals by NHK for a

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* See, e.g., CCIR Document 11-165 (November 2, 1987) and CCIR Doc. IWP 11/6-2020 (January 9, 1989).

studio production system, was developed by SMPTE over five years by 260 technical experts in the U.S. and Canada. During that intensive review process, the original NHK production system design was modified in many respects to serve as a viable proposal for a single worldwide HDTV standard for production and program exchange.*

The standard was approved by the Advanced Television Systems Committee ("ATSC") in January 1988, by the Society of Motion Picture and Television Engineers ("SMPTE") in February 1988 and has been approved by the American National Standards Institute (where a belated appeal by Capital Cities/ABC was denied in February 1989). The ATSC and SMPTE deliberations on the HDTV production standard made use of the original, basic research conducted earlier by NHK, but the final parameters selected were based on the sound technical judgment and the needs of the program production and television broadcasting industries.

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* Consistent with its characterization of the 1125/60 standard as "the NHK standard," the Notice states that the the system was recommended to the May 1986 CCIR Plenary Assembly by the Government of Japan. Notice at 51297. In fact, the recommendation for the 1125/60 HDTV production system as the world standard was presented to the Assembly by the Chairman of Study Group 11, Prof. Krevosheev, as part of his report. It was the product of extensive debate by a number of countries attending the Study Group 11 meetings preliminary to the Dubrovnik Plenary Conference and was ultimately supported by the governments of the United States and Canada, as well as Japan. See CCIR Report 801-1, Annex 2 (1986). It remains the only proposal for an HDTV production standard in agreed Plenary texts.

The United States Should Continue To Pursue The Goal Of Adoption Of SMPTE 240 As The Single Worldwide HDTV Production Standard.

The Notice does not contest the technical quality of the SMPTE 240 standard, and it does not, except in one respect*, question its suitability for worldwide adoption. Yet the NTIA suggests that a reassessment of the United States position may be in order because "it has become evident that a single, worldwide HDTV production standard will not be agreed upon." The NTIA has apparently come to this conclusion because some European administrations are sponsoring their own 1250/50 production standard through the Eureka 95 Project and because of the emergence of some "other production

* The Notice expresses concern that a "strobing effect" caused by differences in cycle rates between production equipment and the power supply in a country where the production is taking place may jeopardize the global suitability of a 60 Hz standard in a country with a 50 Hz power supply, and vice versa. This issue was raised in the CCIR deliberations in early 1985 when the 1125/60 system was first proposed as the world standard. Japan has a 60 Hz based television system, while their country's power supply is half 60 Hz and half 50 Hz. They have found that power supply units providing constant current amplitude or careful alignment of lamp sets connected to different phases of the power lines will alleviate the problem. Another solution is antiphase modulation of the impaired signal. In a contribution to the CCIR (Doc. 11/405, 14 October 1985) the EBU concludes that "[t]his problem is probably a solvable one and need not weigh heavily in the choice of field rate... ." The issue has not been raised since 1985, indicating that it is not considered a significant problem by the 50 Hz countries, and it certainly presents no justification for abandoning the quest for a single world production standard.

standards," a reference that includes the NBC group of proposals. In fact, it is simply too soon to attempt to predict the result of the long United States effort to achieve a single worldwide production standard, and it certainly would be counterproductive for the U.S to question its longstanding support for an 1125/60 standard now.

The mandate of the 1986 Dubrovnik Plenary was "to continue the work necessary to define a full set of relevant digital parameters ... and analogue parameters for a single world-wide high definition television standard for programme production and for international exchange of programmes."* As recently as the January 1989 meeting of CCIR Interim Working Party 11/6 (IWP 11/6), whose prime mission is to develop a recommendation for a single world HDTV standard for use in the studio and for the international exchange of television programs, all of the administrations attending continued to support the need for a single world standard. The U.S. submission to that meeting, prepared less than two months ago, was approved by the CCIR National Committee (including NTIA). It evaluates the available information and concludes that "the only standard which is in a position to be considered

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* CCIR Study Group 11, Decision 58-1, Section 1.2.

as a recommendation at this time is the one based on 1125/60 Hz."*

Two HDTV systems have been proposed as candidates for a single world wide HDTV production standard -- the 1125/60 (SMPTE 240M) system supported by the U.S., Canada and Japan and the 1250/50 system developed by EUREKA and supported by only five of the thirteen European Community countries. The vast majority of the member administrations have not made their decisions. In that regard, the USSR and eastern European administrations (along with OIRT, the union of Eastern European broadcast organizations) are sponsoring a series of tests supported by the world's broadcasters to help in determining the best production standard.** Until these tests are completed and the CCIR study cycle is completed with the Plenary Assembly in the spring of 1990, it would be presumptuous to conclude that there will not be a single world HDTV production standard.

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* CCIR Doc. IWP 11/6-2020 (January 9, 1989) at 5. The Notice seeks information on "criteria that should be used in deciding to support a production standard... ." Notice at 51297. The January 9 CCIR contribution discusses such criteria, including technical parameters, relation to emission standards, status of equipment availability, operational uses, testing status, and convertibility. A copy of CCIR Doc. IWP 11/6-2020 is appended to these Comments as Attachment B.

** See, Washington Post (February 23, 1989) at E1.

Under these circumstances, CBS strongly believes that the United States should not abandon support for the adoption of a single worldwide 1125/60 production standard, but should present a united front in favor of that standard through the 1990 Plenary Assembly and beyond. SMPTE 240M is the only proposal whose design and demonstrated performance meets the criteria for global use.* That is, it is very likely to be suitable for source material for any domestic HDTV transmission system that is ultimately approved and has been shown to be easily convertible to NTSC, PAL, SECAM and 35mm film.

Moreover, 1125/60 is much further developed than any of its belated competitors, and indeed is already in wide use in this country as well as in Canada and Japan. Even if CCIR approval of an 1125/60 world standard is not unanimous at the May 1990 Plenary Meeting, continued United States support will sustain the momentum that has already been achieved toward a de facto 1125/60 standard throughout most of the world. Other unpredictable developments -- including the possibility of support for SMPTE 240M by the Soviet Union after its scheduled tests of the American and European production systems -- could enhance the international status of an 1125/60 standard even more, and could well result in eventual acceptance of

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* See Attachment B.

the standard even by the reluctant Western European administrations.

As discussed in Attachment A, a major element in the strategy of the European Community in promoting the Eureka project is to protect its motion picture and program production industries from American competition and to discourage "cultural pollution." To the extent that the effect, if not the sole intent, of the Eureka project would be to erect a non-tariff trade barrier that would adversely affect American trade balances and jobs, the United States Government should be especially reluctant to soften its support of SMPTE 240. To the extent that Eureka's 1250/50 proposal is propounded as an authentic candidate for worldwide adoption, its case will be considered at the Extraordinary Meeting of CCIR Study Group 11, presently scheduled for May 1989, which will attempt to decide upon a single worldwide production standard for consideration at the May 1990 Plenary Assembly.

The NBC proposals (1050/59.94/2:1, 1050/59.94/1:1, and 525/59.94/2:1) are not even intended as candidates for worldwide adoption. Rather, they are intended to "meet the needs of American viewers and broadcasters" as part of a multi-step approach to terrestrial broadcast HDTV

implementation in this country.* Because of their direct relationship to the domestic advanced television transmission system that NBC is promoting, its production standard proposals appear to have been motivated by more than an objective judgment that a single worldwide production and program exchange standard was out of reach. In any case, SMPTE is considering the NBC proposals and in due course will recommend some action. SMPTE has not requested the ATSC to change its position with regard to the support of the 1125/60 SMPTE 240M as the worldwide standard, nor has the ATSC moved to consider these new proposals in this light.

Conclusion

CBS believes that that it is important that there be a single worldwide HDTV production standard. That goal continues to be worth pursuing, and the SMPTE 240M standard is the right choice for this country and the world. The United States position on the standard has been determined after a long period of cooperation and intensive effort by various broadly based private-sector

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* Comments of National Broadcasting Company Inc., FCC Docket No. 87-268, November 30, 1988, p. 24. CBS has expressed its opposition to a multi-step approach as unwise because it could place American broadcasters at a competitive disadvantage to nonbroadcast media and would be too costly for broadcasters and consumers. Reply Comments of CBS Inc., FCC Docket No. 87-268, January 23, 1989 at 4-6.

standards organizations and the CCIR National Committee in its role of advisor to the State Department on ITU matters.

There is no indication that either the private sector standards organizations or the CCIR National Committee are considering changing their position in support of SMPTE 240M as the single worldwide HDTV production standard. Since even the perception of a United States Government reappraisal of the SMPTE 240M standard at this late date could undermine this delicately balanced cooperative effort, CBS urges the NTIA not to pursue a unilateral inquiry into the merits of the United States position outside of the ongoing CCIR process.

Respectfully submitted,

CBS Inc.

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George Vradenburg III
Vice President and General Counsel

ATTACHMENT A

Dear Congressman Markey: February 1, 1989

CBS is submitting these comments in response to your request for views "concerning methods for optimizing American participation in the development of advanced television technologies and derivative products."

CBS has, as you know, been vitally interested and involved in the development of advanced television technologies for many years. Currently, CBS President and Chief Executive Officer Laurence A. Tisch serves on the FCC's Advisory Committee for Advanced Television; CBS Engineering and Development Vice President Joseph Flaherty serves as Chairman of the Planning Subcommittee of the FCC's Advisory Committee; and Mr. Flaherty and I are directors of the broadcast industry's Advanced Television Test Center.

CBS is interested in High Definition Television technologies for several reasons:

- HDTV production equipment promises to provide an efficient, effective and economic option to the 35mm film medium now widely used in producing television programs.

- HDTV promises dramatically to improve the picture and sound quality of television programming available to the American viewer.

- HDTV program exports will support levels of domestic program expenditures essential to maintaining the quality and diversity of the television industry.

CBS thus appreciates the opportunity afforded by your invitation, Mr. Chairman, to offer its views on how this country might optimize its role in the development of advanced television technologies and derivative products.

Specifically, CBS would make the following points.

First, we would urge Congress not to lose sight of the interests of American television viewers as it assesses American participation in the development of advanced television technologies. Those viewers will look for and expect a broad array of diverse HDTV programming before they buy a new HDTV television set. And the ability of the American broadcasting industry to maintain the quality and diversity of programming to which Americans have come rightly to expect is vitally dependent on the industry's ability to produce and to transmit programs in high definition. Not until new HDTV production and transmission systems and standards are developed and become widely-accepted will such programming become available.

Second, the development of a single, world-wide HDTV production standard is vital to support the levels of domestic program expenditures needed to maintain the current quality and diversity of American television programming and to achieve the positive trade balances historically enjoyed by American television producers.

Not much attention has been paid to the potential effects on international trade in video entertainment products (i.e., "software") in the recent debates about advanced television technologies. In fact, this country has a natural world-wide competitive advantage in the export of video entertainment products because of the size of the English-speaking market and a free and open international program exchange. "Fortress Europe" is well aware of this United States advantage and is seeking to utilize advanced television technology developments to cut off European outlets for American products and to reduce the competitive edge this country has in the production and distribution of video entertainment products.

Should Europe be successful in erecting non-tariff trade barriers to the export of this country's video entertainment products, jobs in the entertainment industry may be adversely affected. For this reason, there has been substantial support in the motion picture and television industry -- and in the unions representing workers in that industry -- for a single world-wide electronic production standard.

While development of video production standards has been, and should remain, the responsibility of the private sector, the Federal government -- through its diplomatic and trade arms -- plays a vital role in assuring that our trade partners not utilize the international standard-setting process as a means of developing non-tariff trade barriers to the export of American video product.

Because the potential adverse effects of fragmented world-wide HDTV production standards on American trade has not been widely understood, CBS has prepared the attached report on that subject for your consideration.

Third, the development of a domestic transmission standard suitable for all domestic mass media is vital to the development of low-cost mass-produced consumer HDTV equipment. The Federal government, through the Federal Communications Commission, has historically set such domestic transmission standards, and it should be encouraged by Congress to do so for HDTV.

The cost to consumers of new HDTV television receivers will bear a direct relationship to the size of the market for those receivers and to their manufacturing costs. Should multiple transmission systems be used by the mass media, the market for an HDTV receiver capable of receiving any one of those systems will be smaller; on the other hand, receivers capable of receiving all possible transmission schemes will be more costly to manufacture. In either event, the burden on the American consumer from multiple transmission systems may be substantial and should be avoided.

Fourth, the development of a competitive marketplace in HDTV manufacturing is critical to the development of low-cost HDTV receivers.

Many have expressed a concern that foreign manufacturing companies will develop a dominant position in HDTV manufacturing, with adverse effects on American trade, jobs and component industries. We believe that these potential adverse effects have been exaggerated.

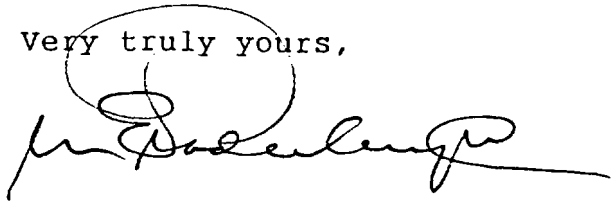
Put simply, HDTV receivers sold in the United States market will be manufactured primarily in plants located in this country no matter what the national origin of the transmission technology we employ in the United States. This country should not compromise the quality of its domestic transmission system -- to the detriment of American television viewers -- in the speculative hope that the choice of a particular transmission system will create a domestic HDTV manufacturing capacity that would not otherwise exist.

Having said that, however, CBS believes that the Federal government -- through the Federal Communications Commission and the Department of Justice -- has an important role to play in assuring open and competitive markets. For example, the FCC might well choose to adopt policies requiring the reasonable and non-discriminatory licensing of any transmission technology used in whatever domestic HDTV transmission standards it selects; and the Department of Justice should strictly enforce the antitrust laws to assure vigorous competition in and the absence of entry barriers into HDTV manufacturing.

As these comments make clear, we believe the Federal government has an important role to play in assuring that American firms and the American viewing public are able to participate fully in advanced television technologies. CBS hopes to play an important role in that process as well.

Again, Mr. Chairman, CBS appreciates the opportunity afforded by your invitation, to offer its views on this important subject.

Very truly yours,



The Honorable Edward J. Markey
United States House of Representatives
Subcommittee on Telecommunications and Finance
316 House Annex 2
Washington, D.C. 20515

ADVANCED TELEVISION STANDARDS AND THEIR IMPACT ON UNITED STATES EXPORTS

Introduction and Summary

The United States today faces a challenge in the setting of world-wide technical standards for the next generation of television. Production and distribution standards for high definition television (HDTV)[1/] have potentially wide-ranging consequences on United States trade balances and on the quality of programming available to United States television viewers.

Much has been written about the potential adverse effects on U. S. jobs and trade balances or the domestic semiconductor industry should the introduction of advanced

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1/ HDTV refers to advanced television characterized by improved horizontal and vertical resolution, improved color rendition, a wider picture that corresponds more closely to the human field of vision, and stereophonic audio. The HDTV production standard adopted in the United States by the Society of Motion Picture & Television Engineers (SMPTE) and the Advanced Television Systems Committee (ATSC) calls for 1125 lines per frame and 60 fields per second. The 1125 lines were chosen by the domestic motion picture and television production industry as the minimum needed to match the quality of 35mm film, and as the most feasible means to permit down conversion to Europe's 625-line standard and the U.S.'s NTSC 525-line standard for conventional television distribution. See IEEE Spectrum, 56, 62 (Apr. 1988).

television technology result in a massive increase in the foreign content of HDTV television receivers sold in this country.[2/] Questions have been raised as to whether the selection of a particular HDTV production or transmission standard will impact that concern. We think not; we believe that it will be world-wide HDTV receiver manufacturing economics and not HDTV production or distribution standards that will determine where HDTV equipment will be built. We do not comment in detail on whether and, if so, how, the United States should attempt to effect changes in world-wide HDTV receiver manufacturing economics (the so-called "hardware" issues). We focus instead on the "software" issues -- that is, the potential adverse effects on the quality of U. S. television programming, on the quantity of American jobs in the entertainment industry and on the currently favorable U. S. trade balances in video software should the world <u>not</u> adopt a single uniform world-wide HDTV production standard.

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2/ <u>High Definition Television (HDTV): Economic Analysis of Impact</u>, American Electronics Association (November 1988)

American producers of motion pictures and television programs have inherent advantages over most of their foreign competitors due to the size of the American market and the large number of English-speaking consumers overseas. These advantages give rise to two important positive effects: first, a large United States trade surplus for these products; and second, an increase in the expenditures on programming inputs, which increases the quality of video entertainment products distributed domestically. As a result, American viewers benefit directly from the export of domestic television programs.

HDTV technology is becoming available that could change all this. On the one hand, production using HDTV equipment could reduce the costs of producing motion pictures and television programs, thereby reducing prices or increasing the output of the television industry. And HDTV could greatly enhance the value of television by producing movie-like quality for television programs. Yet, the advent of HDTV around the world is threatening the export trade in video entertainment products. If foreign countries adopt standards for HDTV which raise barriers to the export of U. S.-produced television programs, foreign demand for United States-produced video entertainment products could be impaired. This would happen if picture

quality suffered from converting United States-produced programs to conform to foreign HDTV standards or if the costs of converting United States-produced video products were high. Both of these conditions appear likely. Moreover, there is evidence that the European push for separate HDTV standards has been motivated in part by a desire to protect European program producers and to retard European imports of American programs. If this effort is successful, a United States industry with a record of trade surpluses would be injured and United States consumers would suffer a decline in the quality of the television programs they view.

The retaliatory establishment of distinctive HDTV standards in the United States would not counteract this damage to the entertainment production industry and to United States viewers since exports of United States-produced video entertainment products far exceed imports of foreign-produced video entertainment products.

The Department of State has a major role to play in the establishment of international standards. For several years, the State Department has supported the adoption of a world-wide production standard in meetings of the International Telecommunications Union (ITU) standards-coordinating body - CCIR.

Strength of United States-Produced Video Entertainment Products in World Markets

United States producers of motion pictures and television programs have benefited enormously from the current high demand for their products abroad. Foreign sales have accounted for roughly half of the total revenues from United States motion pictures and television programs for the last 20 years.[3/] The United States trade surplus in recent years in these video entertainment products has exceeded a billion dollars.[4/] Foreign sales of United States television programs alone have been estimated at $1.3 billion annually and have been predicted to grow to $3.6 billion by the end of 1992.[5/]

United States producers of motion pictures and television programs have an inherent advantage over their

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3/ Renaud and Litman, "Changing Dynamics of the Overseas Market Place for TV Programming", Telecommunications Policy, 249 (Sept. 1985).

4/ U.S. Congress, Office of Technology Assessment, Trade in Services: Exports and Foreign Revenues Special Report, OTA-ITE-316, 89 (Sept. 1986).

5/ Television/Radio Age, 26 (Oct. 3, 1988). See also Syndies Eye O'Seas Sales Boom, Variety (Feb. 18, 1987) at 1 and European appetite for U.S. programming grows, Broadcasting (Oct. 12, 1987) at 66 for discussions of the importance of foreign markets for U.S. television programs.